# USER'S GUIDE TO HASE DATA, VOL. 2: THE SURVEY FILES

PATRICIA BOREN

R-2692/2-HUD

APRIL 1982

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by

The Office of Policy Development and Research
U.S. Department of Housing and Urban Development

Rand
SANTA MONICA, CA. 90406

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# PREFACE

This report describes the research files compiled from field surveys conducted in two metropolitan housing markets as part of the Housing Assistance Supply Experiment (HASE). The report is one of three volumes describing the experiment's 40 research files for analysts and programmers who wish to use the data.[1] The files are accessible through the Housing Research Data Center, sponsored by the U.S. Department of Housing and Urban Development (HUD) and operated by Data Use and Access Laboratories (DUALabs) in Arlington, Virginia.

The experiment was conducted by The Rand Corporation under contract with HUD. Full-scale housing allowance programs were operated under Rand's supervision in Brown County, Wisconsin, and St. Joseph County, Indiana. To determine the programs' effects on each housing market and community, Rand conducted 32 surveys in four annual cycles in each site. The surveys included interviews with the owners and occupants of a marketwide sample of properties, and field observations of their buildings and neighborhoods.

The survey data are contained in 32 files. This report explains how those files are organized and how they relate to each other, describes the contents of each, and offers advice about file processing and analytic uses of the data.

This report was written under the guidance of E. Wayne Hansen and Christine D'Arc. Molly McMullen assisted in preparing the description of file contents in Sec. II and in compiling and formatting the technical appendixes. Evelyn C. Casper developed the plan for modifying variables to protect respondents' confidentiality, and drafted Appendix A.

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[1] The overall experimental design and the roles of the allowance program and surveys are explained in E. Wayne Hansen and Christine D'Arc, User's Guide to HASE Data, Vol. 1: Overview, The Rand Corporation, R-2692/1-HUD, forthcoming. The files of client data collected in the allowance program are covered in Ann W. Wang, User's Guide to HASE Data, Vol. 3: The Program Files, The Rand Corporation, R-2692/3-HUD, forthcoming.

This report was prepared for HUD's Office of Policy Development and Research, pursuant to HUD Contract H-1789, and fulfills Task 2.20 of that contract.

## 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 data on program operations and client characteristics, and 32 survey files contain data from field surveys of the housing market. This report describes the survey files and offers guidance for using them.

### THE SURVEYS

Four annual cycles of field surveys were conducted in each experimental site to monitor the program's effects on the local community. The residential surveys were addressed to the HASE panel, a marketwide sample of about 2,000 residential properties in each site. To keep current with residential development, the panel, was annually augmented with a sample of properties containing newly constructed residences. Other surveys gathered data on all neighborhoods in the county from public records and field observations. The survey types are briefly defined below (underscores identify the sample element).

- Landlord survey--interviews with owners of sampled rental properties about property management and finances.
- Household survey--interviews with tenants and homeowners of housing units on sample properties about their households, housing characteristics, and housing expenses.
- Residential building survey--observations of physical characteristics, condition, and immediate environs of residential buildings on sampled properties.

- Neighborhood survey (two parts)--compilation of secondary-source data on characteristics and facilities of each neighborhood in the county; observations of the features and condition of each street segment (both sides of a length of street between intersections) in the county.

The first or baseline wave of the surveys was conducted in 1974 in Brown County (Site I) and in 1975 in St. Joseph County (Site II), in each case just before the allowance program began enrolling clients. The subsequent waves were conducted annually for three years thereafter. All survey fieldwork was subcontracted.

## THE FILES

The survey cycles yielded 16 files per site: four each for the landlord, household, and residential building surveys (waves 1 through 4) and two each for the neighborhood surveys (waves 1 and 4). Each file contains one fixed-length record for every sample element in the survey type, site, and wave represented. Besides the variables obtained directly from survey instrument responses, the records contain a number of derived variables, added for their analytic usefulness. They consist of aggregations and other transformations of survey responses, data from other sources, indicators for selecting subsamples, and record weights. Each file has a machine-readable dictionary giving the alphanumeric name, location, and length of every variable. Each file is documented by a codebook that defines and provides response distributions for the variables, and an audit report that assesses the completeness and reliability of the data.

## USING THE FILES

Since interviews and observations were not always completed for the entire sample list, the number of analytically usable records is considerably smaller than the total number of records in a file. Indicators for completeness and other record conditions permit users

to select records that contain the types and amounts of data desired and represent the sample elements of interest.

Within a site, records for related sample elements can be linked across survey types in the same wave, or across waves in the same survey type. Other links--such as a longitudinal account pertaining to a landlord and his tenants--pose some problems, for which guidelines are given. Because the numbering systems for identifying sample elements overlap in the two sites, records should not be linked across sites.

A topical index of all variables enables users to determine quickly whether the survey files contain the information they are seeking and where it is found. Changes in the survey instruments from wave to wave resulted in altered names and sequences of corresponding variables across files. A cross-wave index permits users to trace the shifts. To protect the confidentiality of survey responses and the identities of respondents, it was necessary to alter the values of certain variables. The specific changes are detailed.

For analytic designs that require deriving population parameters from sample data, the HASE survey records must be weighted to obtain unbiased estimates. We computed a set of exact sampling history weights and a set of "field-complete" weights to be applied to the analytically usable records. We found that the field-complete weights generally produced good estimates. We also calculated special-purpose weights for the files of particular survey types.

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## ABBREVIATIONS

ATP (alternate tax parcel) number--identifier for sampled property.

ATP-BLDG number--identifier for sampled residential building.

ATP-BLDG-UNIT number--identifier for sampled housing unit.

DUALabs--Data Use and Access Laboratories.

HASE--Housing Assistance Supply Experiment.

HUD--U. S. Department of Housing and Urban Development.

LIS--landlord information sheet.

LL--landlord survey file, usually followed by a site-wave abbreviation (e.g., LL12).

NO--neighborhood street observation survey file, usually followed by a site-wave abbreviation (e.g., NO14).

NS--neighborhood local sources survey file, usually followed by a site-wave abbreviation (e.g., NS14).

POS--previous owner supplement to the landlord survey instrument.

RB--residential building survey file, usually followed by a site-wave abbreviation (e.g., RB12).

Site I--Brown County, Wisconsin (metropolitan Green Bay).

Site II--St. Joseph County, Indiana (metropolitan South Bend).

Site-wave abbreviations:

| | | | |
|---|---|---|---|
| 11 | Site I, wave 1 (baseline) | 21 | Site II, wave 1 (baseline) |
| 12 | Site I, wave 2 | 22 | Site II, wave 2 |
| 13 | Site I, wave 3 | 23 | Site II, wave 3 |
| 14 | Site I, wave 4 | 24 | Site II, wave 4 |

TH--household survey file (originally called the "tenant/homeowner survey file"), usually followed by a site-wave abbreviation (e.g., TH12).

TH/IS--household information sheet.

# I. INTRODUCTION

The Housing Assistance Supply Experiment (HASE) conducted an experimental housing allowance program in two north central metropolitan areas to determine whether direct cash assistance to low-income households was a feasible and desirable way to help them secure decent housing. To monitor the effects of the experimental program on the housing markets and communities in which the program operated, Rand embarked on an ambitious program of data collection. Thirty-two field surveys were conducted in four annual cycles from 1973 to 1977 in Brown County, Wisconsin (Site I), and from 1975 to 1979 in St. Joseph County, Indiana (Site II).[1] The survey agenda was large and complex, with separate but linked interview surveys of landlords and households, and field observations of residential buildings and neighborhoods.

The 32 research files yielded by the surveys, together with the 8 files of client data from the allowance program,[2] constitute a rich resource not only for HASE analyses but for other research on housing and urban problems. Specifically, the survey files should be useful to those interested in housing consumption patterns and policy, residential repair and rehabilitation, residential mobility, rental property management and finance, and housing market structure and dynamics.

This volume provides technical guidance for programmers and analysts in using the files. The rest of this introduction gives essential background information, briefly describing the surveys and preparation of the survey files. Section II delineates the organization and contents of the files. Section III offers specific

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[1] For a description of the experimental design and the roles of the allowance program and surveys, see E. Wayne Hansen and Christine D'Arc, User's Guide to HASE Data, Vol. 1: Overview, The Rand Corporation, R-2692/1-HUD, forthcoming.

[2] The program files and their use are explained in Ann W. Wang, User's Guide to HASE Data, Vol. 3: The Program Files, The Rand Corporation, R-2692/3-HUD, forthcoming.

guidelines for selecting analysis subsamples and linking records to obtain more complete information. Section IV discusses how the records can be weighted to estimate population parameters. Section V reviews the relevant HASE literature for those who require further information on the origin and preparation of the files.

## PURPOSE OF THE SURVEYS

The HASE surveys were of four types. Three of the types were directed to the HASE panel, a marketwide probability sample of about 2,000 residential properties in each site. The panel was regularly augmented with property samples to ensure that it was representative of the local housing market. In the landlord survey, the owners of sampled rental properties were asked to supply information about the property, its finances, management, revenues, expenses, and recent repairs or improvements. In the household survey, their tenants were asked about the characteristics of their dwelling, views on their housing, their housing expenses, and their household composition, residence, and employment history. Homeowners were asked to supply both property and household information. All respondents to the landlord and household surveys were asked about their knowledge and opinions of the allowance program. Interviews typically lasted about 90 minutes and gathered about 500 items of information. In the survey of residential buildings, field observers recorded the physical characteristics and condition of buildings on sampled properties. Figure 1.1 depicts the relation between the foregoing three residential survey types, their respondents, and their sample elements.

The fourth survey type, the neighborhood survey, collected information on all neighborhoods and streets in the county by means of secondary research and field observations.

## SURVEY ADMINISTRATION

All four survey types were conducted at baseline (wave 1), just before the allowance program began in each site. Thereafter, the landlord and household surveys were conducted annually through wave

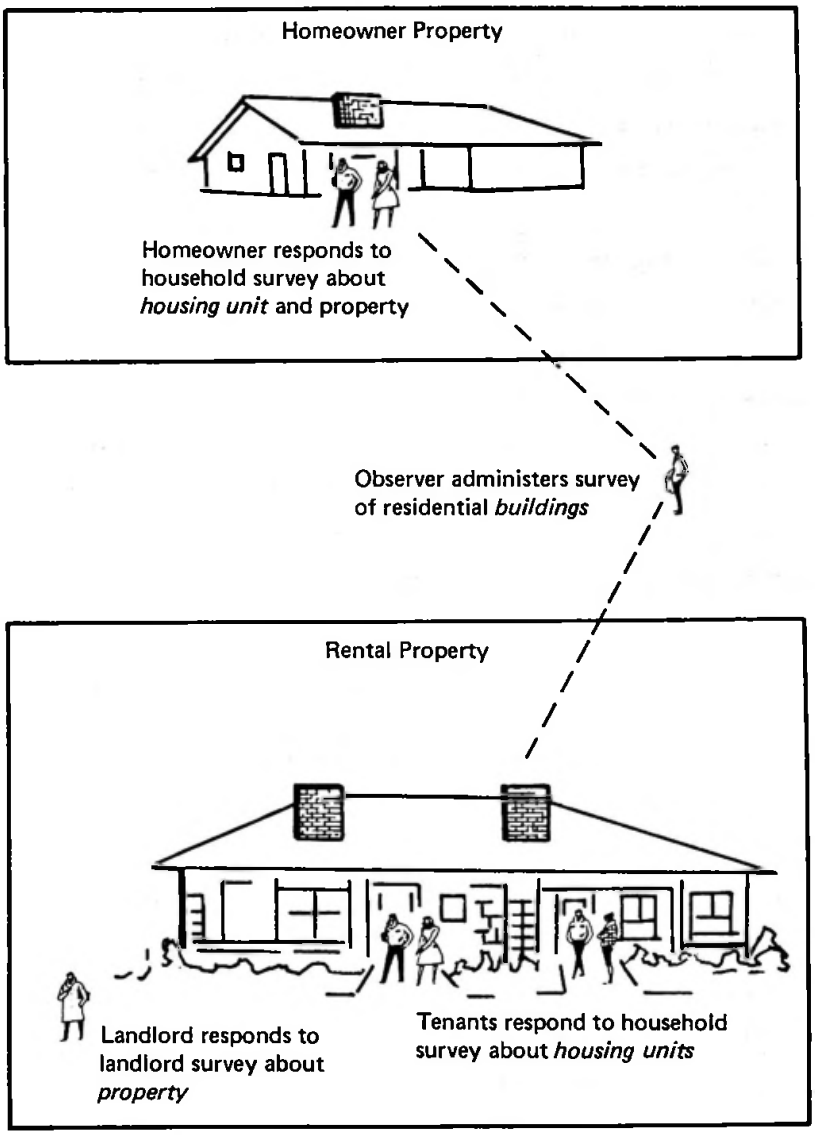


Fig. 1.1 — Relation between respondents and *sample elements* in HASE residential surveys

4. Although the residential building survey was intended for annual administration, comparison of the baseline and wave 2 results in Site I showed so few changes that we decided not to survey the full sample again until the last wave. Therefore, administration of the intervening residential building surveys (Site I, wave 3, and Site II, waves 2 and 3) was confined to the new buildings on previously empaneled properties and the panel augmentation samples. By design, the neighborhood surveys were conducted only at the first and last waves. Figure 1.2 depicts the timing of the 32 surveys in relation to the allowance program. Because of the six-month difference in the opening of the allowance program in the two sites, the survey waves in Site II lagged a year behind those in Site I.

Fieldwork was subcontracted. In Site I, Mathematica, Inc. conducted the baseline surveys; the National Opinion Research Center conducted waves 2 through 4. In Site II, all surveys were conducted by Westat, Inc. The subcontractors hired a local staff of interviewers and observers and trained them according to a manual prepared or approved by Rand.

## FILE PREPARATION

At the end of fieldwork for a particular survey (say, wave 2 of the Site I landlord survey), the completed questionnaires were sent to Rand, where verbatim responses were coded and all responses were entered into machine-readable records. The records were then edited and collated into a preliminary master file. We next audited that file--accounting for the sample by checking each record received from the field against the master sample list and resolving any discrepancies; checking response distributions for implausible values; and calculating weights for individual records so that they would collectively represent the sampled populations. We also augmented the file with derived variables, consisting of transformations of original survey responses, data from other sources, and sample-selection indicators. After correcting any errors in the derived variable data, we archived the augmented survey file as a final master file.

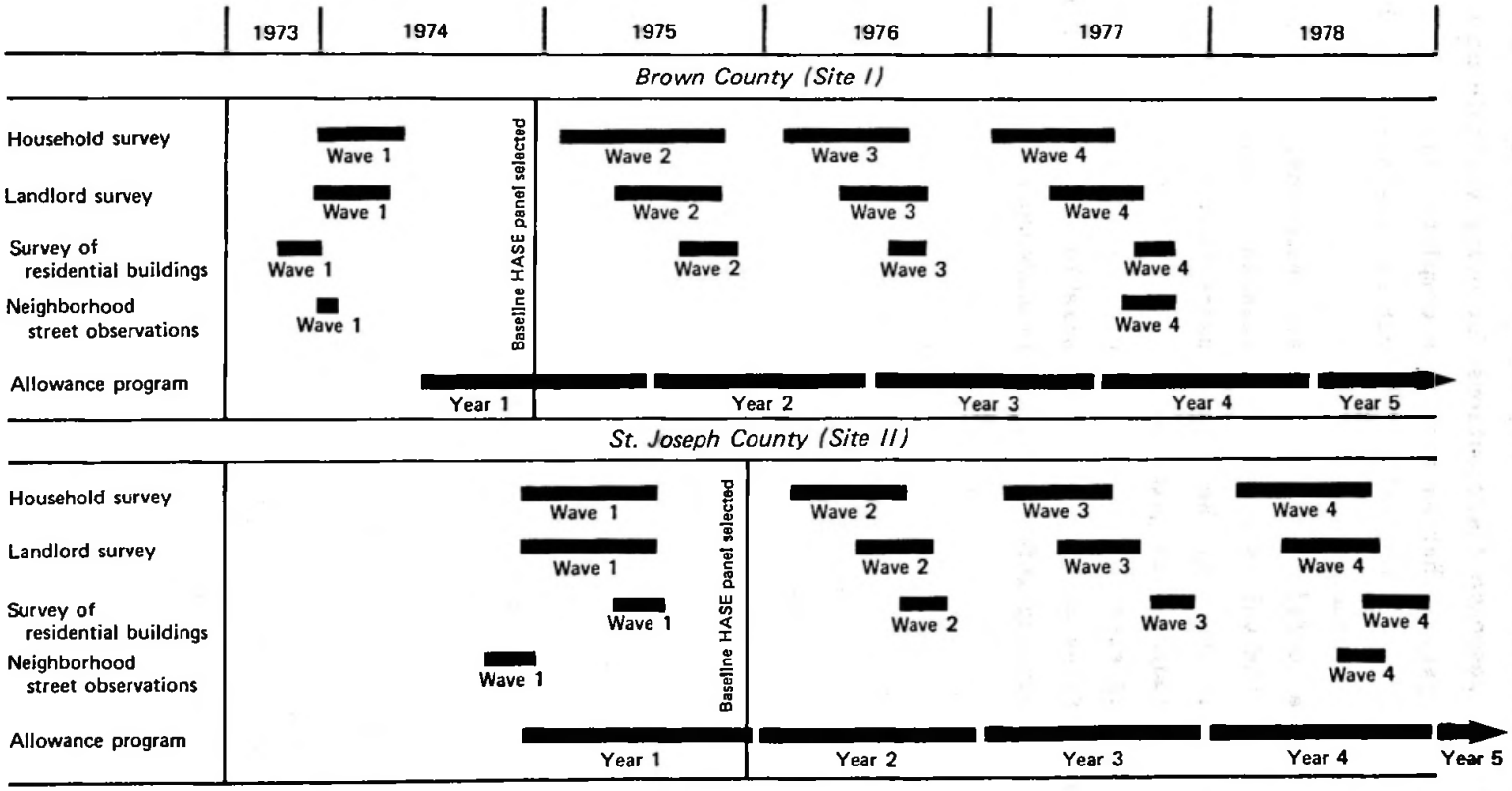


Fig. 1.2—Timing of HASE survey fieldwork in relation to allowance program

Each survey file is documented by one or more codebooks that define and provide response distributions for every variable on the file, and an audit report that assesses the completeness and reliability of the data. Codebooks and audit reports are individually listed under "File Documentation" in Sec. V.

To protect the confidentiality of survey responses, we found it necessary to alter the values of certain variables. Appendix A details the specific changes. We caution users that all file documentation (including this guide unless otherwise specified) pertains to the unaltered files. Therefore, many response frequencies obtained from the files and even certain variable definitions will differ from corresponding information in the codebooks.

# II. FILE ORGANIZATION AND CONTENTS

This section describes how the survey files are organized and traces the evolution of their contents over the course of the experiment.

## FILE ORGANIZATION

Each of the 32 HASE surveys generated a data file. The landlord (LL), household (TH),[1] and residential building (RB) survey types, conducted in all four cycles in the two sites, are represented by eight files each. The neighborhood local sources (NS) and neighborhood street observation (NO) survey types, conducted only at waves 1 and 4, are represented by four files each.

A data file contains one fixed-length record for every element in the sample for the survey type, site, and wave represented.[2] The sample elements vary by survey type, as follows:

| Survey type | Sample element |
|---|---|
| Landlord | Property |
| Household | Housing unit |
| Residential building | Building |
| Neighborhood local sources | Neighborhood (HASE-defined) |
| Neighborhood street observation | Street segment |

For example, the TH12[3] file contains a record for each of the 3,389 housing units on the household survey sample list for Site I, wave 2.

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[1] The household survey was originally called the "survey of tenants and homeowners," a term that is reflected in much of the survey file documentation.

[2] The exceptions are the baseline survey files, which contain a record for each sample element chosen for the baseline HASE panel, a subset of the full baseline sample.

[3] "TH12" is an example of HASE shorthand adopted to refer to the survey files. The two letters signify survey type; the numbers indicate site and wave, respectively. Where necessary to avoid awkwardness, we use the shorthand forms throughout this volume.

The records vary widely in amounts of usable data. Field-complete records--the subset representing completed interviews or observations--contain the most analytically useful data. But even the largely blank records representing vacant housing units, buildings converted to nonresidential use, and households who refused an interview contain a field history and final status that would be useful in an independent reanalysis of the full sample.

Table 2.1 enumerates the total and field-complete records on the 32 HASE survey files by survey type, site, and wave. The completion rate (the ratio of field-complete to total records) indicates how much of each sample was successfully surveyed. As expected, the surveys not requiring respondent cooperation, the residential building and neighborhood surveys, show the highest completion rates.

## Record Structure

Because of the size and complexity of the HASE data base, conventions were needed to preserve order and facilitate use of the files. To that end, we devised a standard format for entering survey data on a record; established conventions for naming variables; and compiled a dictionary to describe each variable and indicate its location on the file.[4]

The HASE record format specified the mode and arrangement of parts in each record so that different records and different files could be processed by common utility programs. To keep the design simple, only two types of data were allowed: character and 32-bit floating-point binary. The character type was used for variables with alphanumeric codes that lended themselves to linking or selecting records; the binary type was used for all other variables to facilitate mathematical computations.

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[4] The descriptions that follow are specific to the Rand system. DUALabs may have changed some of the details; users should also refer to DUALabs Staff, Housing Research Data Center User Manual, Vol. 3: Primer of On-Line Access Procedures, June 1981.

Table 2.1

SUMMARY OF RECORDS ON HASE SURVEY FILES

| Survey Wave | Brown County (Site I) | | | St. Joseph County (Site II) | | |
|---|---|---|---|---|---|---|
| | Total Number of Records | Number of Field-Complete Records[a] | Completion Rate[b] | Total Number of Records | Number of Field-Complete Records[a] | Completion Rate[b] |
| *Landlord Survey* | | | | | | |
| Wave 1 | 1,318 | 1,318 | 1.00[c] | 1,417 | 1,404 | .99[c] |
| Wave 2 | 1,360 | 1,105 | .81 | 1,444 | 915 | .63 |
| Wave 3 | 1,347 | 935 | .69 | 1,394 | 935 | .67 |
| Wave 4 | 1,314 | 910 | .69 | 1,346 | 831 | .62 |
| All waves | 5,339 | 4,268 | .80 | 5,601 | 4,085 | .73 |
| *Household Survey* | | | | | | |
| Wave 1 | 3,293 | 2,712 | .82 | 3,559 | 2,066 | .58 |
| Wave 2 | 3,389 | 2,472 | .73 | 3,603 | 1,958 | .54 |
| Wave 3 | 3,541 | 2,360 | .67 | 3,696 | 2,143 | .58 |
| Wave 4 | 3,621 | 2,424 | .67 | 3,686 | 2,103 | .57 |
| All waves | 13,844 | 9,968 | .72 | 14,544 | 8,270 | .57 |
| *Residential Building Survey* | | | | | | |
| Wave 1 | 2,153 | 2,116 | .98 | 2,515 | 2,366 | .94 |
| Wave 2 | 2,225 | 2,075 | .93 | 10 | 6 | .60 |
| Wave 3 | 139 | 107 | .77 | 140 | 131 | .94 |
| Wave 4 | 2,325 | 2,263 | .97 | 2,557 | 2,429 | .95 |
| All waves | 6,842 | 6,561 | .96 | 5,222 | 4,932 | .94 |
| *Neighborhood Local Sources Survey* | | | | | | |
| Wave 1 | 108 | 108 | 1.00 | 86 | 86 | 1.00 |
| Wave 4 | 108 | 108 | 1.00 | 86 | 86 | 1.00 |
| All waves | 216 | 216 | 1.00 | 172 | 172 | 1.00 |
| *Neighborhood Street Observation Survey* | | | | | | |
| Wave 1 | 8,084 | 8,084 | 1.00 | 12,152 | 12,152 | 1.00 |
| Wave 4 | 9,315 | 9,256 | .99 | 12,933 | 12,852 | .99 |
| All waves | 17,399 | 17,340 | 1.00 | 25,085 | 25,004 | 1.00 |

SOURCE: Tabulated by HASE staff from the final master files for all surveys.

[a]Records representing completed interviews or observations.

[b]Field-complete records divided by total records.

[c]Properties empaneled from a larger number surveyed at baseline. One of the empanelment criteria was complete baseline records (for rental properties, a landlord interview and at least one tenant interview; for homeowner properties, an interview with the owner-occupant).

Each record captures information related to a particular survey interview or observation for the sample element represented. The information is presented in five sections:

Header. The header consists of identifiers used to match, select, and track records across survey types and time. Therefore, header variables have the same names across files. All fields are in character type; if not used, they are left blank.

Identifiers. Following the header, free space is allotted for additional identifiers determined during analysis. Identifier fields contain character data and vary in length. Unused fields are left blank.

Indicators. Indicators, which define analytic subsamples, are each 1 byte long and contain character data, usually code 0 or 1.

Survey variables. Survey variables compose the bulk of the record and contain all information gathered in the interview or observation. They are in binary form. A field is provided for every item in the survey instrument that called for a response from either the respondent or fieldworker. Fields lacking actual survey responses contain an audit code explaining the absence of a response.

Analytic variables. Analytic variables are aggregations or transformations of survey variables into analytically useful elements. These fields are binary and 4 bytes long. Unused fields contain audit code -11 or -23.

Collectively, identifiers, indicators, and analytic variables are called derived variables because they are derived from survey data.

## Variable Naming Conventions

The header variables have standard mnemonic names (see Table 2.2). Survey variables were individually named to correspond with question numbers in each survey instrument. Therefore, a variable with the same name but in another file may not contain the same information. A survey variable name can have as many as five parts:

- Letter representing the module (section) in the instrument (A, B, C, etc.).

Table 2.2

HEADER VARIABLES

| Name | Description | Survey Type |
|---|---|---|
| FILENAME | Name of the survey | All |
| SITEWAVE | Site and wave | All |
| ATP | Alternate tax parcel number | LL, TH, RB |
| BLDG | Building number | TH, RB |
| UNIT | Unit number | TH |
| HH1ID | Identifier for male household head | TH |
| HH2ID | Identifier for female household head | TH |
| ORID | Identifier for owner of record | LL, TH, RB |
| DRID | Identifier for designated respondent to landlord survey | LL, TH, RB |
| CBLOCK | Census block | LL, TH, RB, NO |
| CED | Census enumeration district | LL, TH, RB, NO |
| CTRACT | Census tract | LL, TH, RB, NO |
| NBHDCODE | Neighborhood code | All |
| NBHDSEG | Neighborhood street segment | NO |
| FILL001 | Filler for correct alignment | LL, TH, RB |

SOURCE: Tabulated by HASE staff.

- For the household survey, respondent type (T = tenant, H = homeowner, M = mobile home resident, L = lodger).
- Question number.
- The letter "Z" to denote subparts of the question. For readability, the delimiter Z appears as a colon (:) in all file documentation.
- Question subparts--numbers, letters, or both.

For example, the variable name BL25Z6 (in the codebook, BL25:6) signifies the 6th part of the 25th question in module B, addressed to lodgers.

Derived variables were named by the analysts who defined them. The names are either mnemonics such as CODEBK and HHRACE or letter-number combinations such as X1 and Y25. Across files, derived

variables with identical names provide the same information. For example, the variable X1 always indicates the number of residential units on a landlord's property at a particular wave; CODEBK always indicates whether a record is included in a particular file. Though derived variables with the same name describe the same thing, their constructions may differ, as required by the survey instrument.

Besides a common name, each derived variable has a default name, or alias, by which the data can be accessed. The aliases are grouped into three ranges depending on the section of the record: ID000001 to ID0000xx for identifiers; IND00001 to IND000xx for indicators; and fnXX0001 to fnXXxxxx for analytic variables. The abbreviation "fn" refers to the survey type (LL, TH, RB, NS, or NO) and the lowercase "x"'s stand for the highest number of variables on the file. Either the common name or the alias can be used to identify a derived variable.

All variable names have one to eight characters consisting of the letters A to Z and the numbers 0 to 9.[5]

Variable Dictionary

To keep track of each file, we compiled a machine-readable dictionary of the contents. It contained the name and alias of each variable on the file; the location of each variable in a record; the data type and length of each variable; and, for derived variables, a capsule description and permissible values.

FILE CONTENTS

Apart from the header, the records in each file consist of survey variables and the variables derived from them. Therefore, the most efficient way of describing the contents of the HASE survey files is to describe the survey instruments on which the variables are based.[6]

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[5] Because the Housing Research Data Center's system is limited to six-character variable names, DUALabs has altered many of the variable names appearing in this and previous HASE documentation. To track the changes for specific variable names, see the cross-index available on-line at the Data Center.

[6] A detailed topical index of all survey and derived variables is provided in Appendix B.

The survey instruments were designed by Rand and approved by HUD and the U.S. Office of Management and Budget. Questions were taken from various sources, including the U.S. Bureau of the Census. Sometimes questions were repeated in the instruments of more than one survey type as a reliability check.

For ease of administration, the instruments were usually divided into modules of related questions. Skip patterns were incorporated in most questions to direct different responding samples to appropriate subsequent questions. For example, question 5 from a landlord survey instrument asked:

5. (Do you/Does the owner/Does the firm) currently own any other rental housing property in the county--that is, property other than the one this interview is about?

YES..... 1
NO...(GO TO Q.8)..... 2

A landlord who said he did not own other rental properties in the county was thus skipped over questions 6 and 7 about the number of those properties and how many residential units they contained. Sometimes respondents were skipped over entire modules. For example, the module concerning the landlord's experience and activity in real estate applied to the landlord himself, not the sampled property. Therefore, the first question in that module asked whether the respondent had given real estate information in an interview about another sampled property. If so, the interviewer was directed to go to the next module.

To reduce the burden on the respondent as the surveys continued, we added more skip patterns. For example, a series of questions was incorporated in the wave 4 landlord and household surveys (a) to determine whether the respondent had provided complete mortgage/loan information at wave 3 and if so, whether the terms had changed; and if they had not, (b) to skip him over the mortgage/loan questions.

Besides reducing the burden on the respondent, instrument changes were made to meet new analytic requirements and resolve minor fielding

problems. As appropriate, questions were added, dropped, combined, and divided. A change in the instrument for one survey type (usually the landlord) often triggered a corresponding instrument change for another type (usually the household). The following pages delineate the successive survey instruments for the landlord, household, residential building, neighborhood local sources, and neighborhood street observation surveys.[7] For each type, we describe the Site I, wave 1 instrument in detail, then outline the cumulative changes in later administrations.[8] Descriptions are arranged in the order the surveys were actually administered (from one site to another) rather than in wave order within each site.

## Landlord Survey Instruments

For the landlord survey, we sought interviews with current owners of rental properties and previous owners of properties that had changed hands since the prior survey wave. We defined "owner" broadly, disregarding the legal form of ownership (proprietorship, partnership, or corporation), the position of the respondent (sole or co-owner, employee of a corporate owner, or representative of either), the nature of the owner's rental holdings (residential only, mixed residential-nonresidential), the number or geographic concentration of properties owned, and type of building owned (single-family dwelling, multiunit dwelling, or mobile home). Sometimes we had multiple respondents for the same property; the owner might answer questions about tenant policy but refer the interviewer to his accountant regarding property finances. The sample element was a property rather than a person, so respondents who owned more than one sampled property were interviewed about each (with certain exceptions, mentioned below).

Unless otherwise noted, information was sought for the calendar year preceding the interview.

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[7] Reproductions of the instruments appear in the main-survey codebooks, listed under "File Documentation" in Sec. V.

[8] Here we focus on the changes of substance; changes in variable sequence and names from wave to wave are traced in Appendix C, "Cross-Wave Indexes of Survey Variables."

Site I, Wave 1

Introduction and Verification. The preliminary module verified the name of the owner and the form of ownership, and determined the proper respondent for each of the questionnaire's main subdivisions. It thus informed the interviewer whether someone other than the owner was the appropriate respondent, how to contact him, and which modules should be addressed to him.

Acquisition and Ownership of Property. The second module began with questions about when, how, and why the property was obtained. Motive for acquisition helps explain why landlords differ in their supply responses to changes in effective demand for housing. For example, a landlord who acquires a property for current income probably uses different operating policies than one who buys it for capital gains. A property intended to generate revenue might be more affected by short-term changes in market conditions than a property held for long-run capital gains or eventual redevelopment. Subsequent questions asked whether the landlord had ever resided on the sampled property, which is important because direct communication between owner and tenants could affect tenant satisfaction.

Experience and Activity in Real Estate. Here the instrument probed the extent of the landlord's real estate activity and his market sources of information. The data indicate whether landlords who pursue their real estate interests full-time perceive and respond to changes in market demand sooner than those involved only part-time. A professional landlord with large holdings has better access to market information so should have a more sophisticated understanding of economic opportunities than one who rents out just a few units.

If a landlord owned more than one sampled property, this module was asked just once, since the subject was the landlord rather than a specific property. The responses were then copied onto the records of the other sampled properties he owned.

Property Description and Revenues. The fourth module elicited detailed information about the sampled property: the current use and age of the buildings, and major structural alterations or changes in

use. The property's history and present configuration might influence the current owner's response to changes in effective demand.

In addition, this module obtained data on gross and net revenues, both actual and imputed, and recent revenue changes. Revenues relating to residential tenants were reported separately from those relating to commercial tenants. Imputation was necessary to calculate the value of free or reduced rent granted by the owner to himself, his relatives, or other preferred tenants (e.g., friends and elderly or long-term residents). Actual rent received plus the value of losses due to vacancies, bad debts, and rent waivers yields full market rent, which is needed to standardize landlord accounts and perhaps explain unusual rent policies.

Management, Maintenance, and Operating Costs. This module elicited the landlord's expenses for managing and maintaining the property, including labor costs for direct employees, the value of unpaid labor performed by the landlord and his friends or relatives, and utility expenses. Related nonfinancial information was also gathered when appropriate. For example, when obtaining fuel cost, the instrument asked the type of heating equipment used.

Expense information reveals the scope and complexity of the landlord's real estate investment holdings. An owner with access to professional advice on management, legal matters, and accounting probably operates quite differently from one without such help. The landlord's current use of service contracts (e.g., furnace maintenance agreements) and real estate brokers, agents, and rent collection companies establishes a baseline for comparing his use of those market intermediaries in later years.

Repairs and Improvements. This portion of the instrument covered the types and costs of repairs, both major and minor, including who performed the work and whether the repair was an operating expense or a capital improvement. Capital changes, along with an appraisal of the property's market value, suggest the owner's investment position. The annual amount he spends on repairs and how he distributes it among improvement types give clues to his supply response behavior. When the component repair costs are adjusted for

normal inflation, price and quantity changes can be calculated. Tenants' satisfaction with their housing is also affected by repairs.

Mortgage, Taxes, and Insurance. This module determined the costs associated with loan amortization, tax payments, and insurance premiums. The absolute amount of those costs, as well as their relation to all other expenditures, influences owners' supply responses. Related questions ascertained the grantor of any mortgage, the terms of agreement, and problems encountered. The purchase date and financing terms help establish the market value of the structure and similar buildings.

Landlord-Tenant Relationships. To provide further clues concerning landlords' supply responses, this module sought information about relations with their tenants: rent collection problems, turnover rates, lease policies, tenant complaints, and tenant selection policies.

Perception of Neighborhood. The supply response to increased housing demand probably reflects landlords' perceptions of the economic opportunities afforded by their real estate investment holdings. This module captured a key factor in assessing economic opportunities--the landlord's perception of the neighborhood surrounding his property and the quality of his building compared with those nearby.

If a landlord believes that a neighborhood is physically deteriorating, he may also believe that property values are falling and avoid making major outlays for rehabilitation. Similarly, if a landlord thinks that changes in the neighborhood's social or ethnic composition may soon lower the rent level or increase the rate of deterioration, he may hesitate before undertaking major capital improvements. Closely related is the landlord's perception of how favorably his property compares with surrounding properties. To understand a landlord's rationale for investment, one must understand his perception of the competition.

If a landlord owned more than one sampled property on the same block, this module was administered just once. Responses were then

copied onto the records for the landlord's other properties on the block.

Plans for Property. This module asked the landlord to explain his plans for the property, including future improvements, rent policies, and intentions to sell. His estimate of its market value, satisfaction with its financial return, and reasons for intending to sell were also explored. A final series of questions determined whether the landlord knew about the housing allowance program. If he had prior knowledge, his responses might be biased, or he might already have taken action in anticipation of subsidy payments.

Supplementary Forms. On the contact card the interviewer recorded the date and time of contact with the respondent. Space was provided for multiple contact attempts. The validation form recorded the results of brief reinterviews conducted to check the quality of fieldwork. Validation respondents were randomly chosen from those who had completed interviews. The reinterview verified that certain questions were asked in the original interview and repeated certain other questions. The validation form had separate versions for single-unit and multiunit properties. When a respondent refused to be interviewed, the circumstances were fully recorded on the refusal form. It identified how the refusal was made, by whom, and for what reason. The strength of the refusal was also indicated, and the respondent's statements were reproduced as closely as possible. Based on that information, field staff decided whether the respondent might be persuaded to change his mind. The respondent's personal characteristics--sex, age, and race--were also recorded to help determine if specific groups were being systematically excluded from the study.

Site II, Wave 1

Property Description and Revenues. To reduce respondent burden and resolve fielding problems encountered during the LL11 survey, revenue questions were made more detailed. Questions were added to verify that only the income from the residential part of the property

(not the farm or commercial part) was reported. A set of questions regarding federal housing subsidies was added.

Management, Maintenance, and Operating Costs. Provision was made to record utility costs in the aggregate; many landlords received one bill for two or more utilities so were unable to distinguish individual costs.

Evaluation of Housing Allowance Program. A new "attitude" module was added for probing respondents' awareness, opinions, and expectations of the allowance program. The LL11 survey had been conducted well before the program began, so questions about it were inappropriate then. In Site II, however, the first survey overlapped the beginning of enrollment. The attitude module was administered just once to landlords holding more than one sampled property. Unlike the rest of the instrument, most attitude questions were open-ended, and interviewers recorded the responses verbatim.[9]

Supplementary Forms. The vacancy supplement and previous owner supplement (POS) were added. The vacancy supplement reported the habitability of vacant properties. The POS enabled us to collect full-year data by obtaining information from owners who had sold the property during the previous year. (Because the sampling element is the property, we need full-year data about it regardless of owner.) For the portion of the year not covered by the current owner, the interviewer recorded the previous owner's description of the property and his income and expenses for management, maintenance, repairs, improvements, value of unpaid labor, mortgages, taxes, and insurance. Nearly all questions were taken directly from the main survey instrument.

The contact card was expanded into the landlord record folder, a form on which the interviewer recorded basic interview information: the date and time of contact with the respondent, whether the contact was in person or by phone, and the result (completion of interview,

[9] This part of the instrument is documented in an attitude-module codebook for this and each later landlord survey file (see "File Documentation" in Sec. V).

refusal to be interviewed, failure to contact, etc.). The two versions of the validation form were merged.

Site I, Wave 2

Property Description and Revenues. Divided into two modules, "Property Description" and "Income." The former was expanded to include questions about how the property had changed during the past year; if it had not changed (e.g., no units or land added or removed), the respondent was skipped over a number of questions to relieve him of repeating information collected the previous year.

Management, Maintenance, and Operating Costs. Retitled "Expenses."

Supplementary Forms. Space was added to the refusal form (retitled refusal/breakoff form) to explain the circumstances when respondents prematurely terminated an interview. The vacancy supplement was dropped because its questions were incorporated in the introductory module of the instrument proper.

Site II, Wave 2/Site I, Wave 3 (Identical Instruments)

The instrument was altered to reduce the burden on prior-wave respondents. Data on the property's address, description, and ownership were collected at the beginning of fieldwork and printed on a landlord information sheet (LIS) attached to each instrument. At various points in the interview, the respondent was asked to verify LIS information; if it was correct, he was skipped over several subsequent questions.

Acquisition and Ownership. Prior-wave respondents were exempted from this module by a new skip pattern.

Repairs and Improvements. The module was augmented with questions on whether a market intermediary such as a building contractor participated in the repair, how the repair was financed, and the landlord's satisfaction with the work.

To yield more accurate data, questions regarding the value of unpaid labor on the property were altered to elicit hourly instead of yearly estimates.

Neighborhood. Nearly 20 questions about the types of people living in the neighborhood and the landlord's opinion of them were replaced by 3 open-ended questions whose answers were recorded verbatim.

Plans for Property. Questions on the landlord's plans for improvement and maintenance of the property were simplified.

Supplementary Forms. The POS was expanded to include information on repairs, improvements, and the value of unpaid labor for time periods inadvertently missed before. The survey schedule and the design of the original POS caused gaps in gathering full-year data for properties that changed hands. The interviews were conducted in April but sought information for the previous calendar year. With the original POS, if a property was sold between January and April, we lost information for whatever period during that quarter the previous owner held it.

To provide the missing information, we separated the POS into three sections. Section 1 resembled the original POS in obtaining financial information for the period in 1975 that the previous owner held the property. Section 2 covered repairs, improvements, and unpaid labor for early 1976 (thereby providing data for the next-wave LL23/LL14 surveys), and sec. 3 covered the same for early 1975. (Had sec. 2 been part of the LL21/LL12 POS, there would have been no need for sec. 3 here; likewise, adding sec. 2 here obviated the need for sec. 3 in the LL23/LL14 surveys.) Depending on when the property was sold, any or all of POS secs. 1-3 could be asked in addition to or in place of the main instrument. Two examples are diagrammed in Figure 2.1.

Owner A held property 1 until September 1975; he answered the LL22 POS, sec. 1 (to augment the main instrument completed by owner B, the current owner), thus completing the 1975 record for the property. Owner B, who held the property throughout 1976, became a previous owner when he sold the property in February 1977, just before the LL23 interview. Because the LL23 survey sought information about 1976, owner B was the only respondent to that survey, answering the LL23 POS, sec. 1.

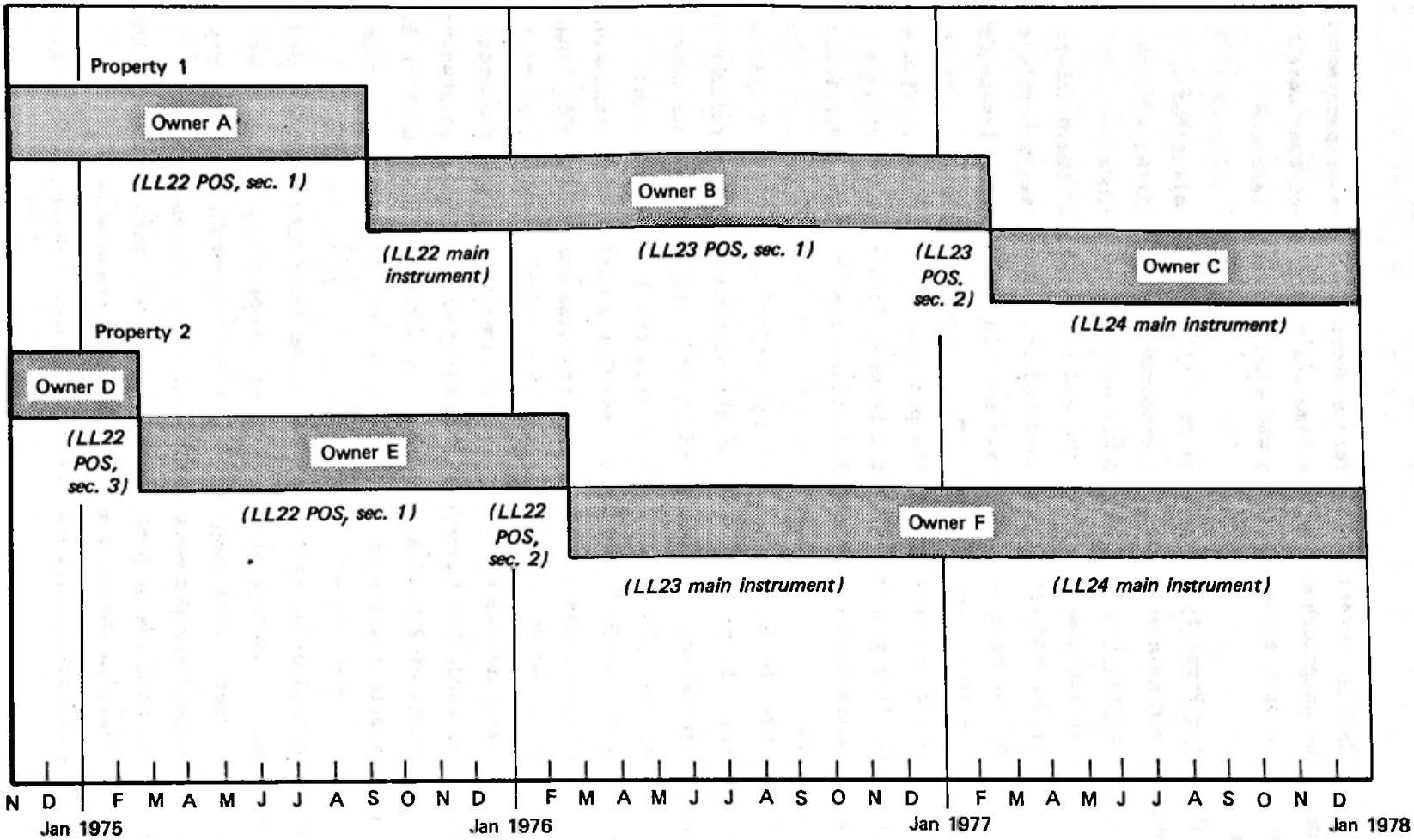


Fig. 2.1—How ownership periods determine administration of main instrument and POS

As for property 2, owner D sold it in February 1975 to owner E, who in turn sold it one year later to owner F. At the time of the LL22 survey, owner F was the current owner. However, he did not own the property at all during 1975, the year for which the LL22 survey sought data. So owner D answered the LL22 POS, sec. 3 (the data covering the two months he owned the property), and owner E answered the LL22 POS, sec. 1. To avoid burdening owner E with the LL23 survey next year, we collected data on early 1976 in sec. 2 of the LL22 POS.

Sometimes an interview did not take place for a reason other than refusal or breakoff. For example, the building may have been demolished or converted to commercial use, or the landlord may have been unavailable because of extended travel or illness. The noninterview form was added for recording such reasons, as well as the name of the unavailable person and possible other respondents for the property.

Site II, Wave 3/Site I, Wave 4 (Identical Instruments)

Supplementary Forms. In the POS, sec. 3 was dropped because information it elicited was obtained in sec. 2 of the prior-wave POS. A new data retrieval form was used when respondents who had completed interviews had to be recontacted for critical missing information. A combined refusal/breakoff/noninterview form was used for explaining why an interview was not begun or completed.

Site II, Wave 4

The LL24 instrument was similar to that used for LL23, with minor revisions to clarify ambiguities and resolve fielding problems.

## Household Survey Instruments

For the household survey, we sought interviews with the heads of households residing in all sampled housing units. The instrument was designed to be administered with both male and female household heads present. In households with just one head, the interview was of course conducted with a single respondent. As will be seen below, the contents of the interview differed somewhat depending on whether the

respondents were tenants, homeowners, mobile home residents, or lodgers.

Unless otherwise noted, information was sought for the calendar year preceding the interview.

Site I, Wave 1

When the survey was first administered, there were three separate instruments--for tenants and homeowners, mobile home residents, and lodgers/roomers. In each, the questions were grouped into seven similar modules, described below.

Introduction. The first module identified the respondents and indicated whether they were the same household heads interviewed for the unit in the screening survey or new occupants. This module also determined whether there were roomers or "hidden" housing units at the address. Hidden housing units were defined as a room or group of rooms intended as separate living quarters within another housing unit. Occupants of such units had to live and eat separately from other residents and had to have a separate entrance, directly from the outside or through a common hall, as well as a kitchen or cooking equipment for their exclusive use. For the survey, such units were treated as separate housing units.

Characteristics. The second module elicited information about the housing unit needed for judging general housing quality and how well the unit met its occupants needs. The information can also be used to verify landlords' statements about maintenance policies and services, and to explain residential mobility.

The module's first section asked about the characteristics of the housing unit (for renters, characteristics not readily obtainable from the landlord or by field observation). The second section covered the respondent's neighborhood, including other buildings and land uses, characteristics of neighbors, safety, and the quality of neighborhood schools. The third section inquired about community characteristics and services, geographic proximity of friends and relatives, and the respondent's participation in organizations. Renters were asked about

relations with their landlords and opinions about landlord rules and policies.

Housing Expenses. The third module elicited a detailed account of the residents' housing expenses. Renters were asked about current rent (and whether they received reduced rent) and lease arrangements. Owners were asked how they acquired their property, its purchase price, and the terms of the mortgage or loan. Owners also supplied information about current taxes, special assessments, and the property's market value. All respondents were asked about the costs of utilities and fuel, types and costs of repairs and improvements, insurance against hazards, and miscellaneous housing expenses.

Mobility History. The fourth module elicited information on the household's mobility plans and behavior. First we asked whether the household had moved during the preceding year or had current plans to move. Households who had searched but not moved were asked what kind of unit they sought, how they conducted their search, and the reason they did not move.

Next we sought the household's mobility history for five years preceding the interview. Households who had moved within five years were asked to describe their housing search, the expenses they incurred in moving, and their household characteristics at the time of the move. A detailed set of questions was asked about the characteristics and associated costs of up to five prior residences, and the reasons for moving to and from each. Those questions resembled the parts of the second and third modules pertaining to housing quality and expenses. In husband-wife households, only the mobility history of the male head was recorded.

The final section investigated whether the household would change its residence if given a hypothetical increase in monthly income.

Employment History. The fifth and sixth modules asked identical questions on the employment history of the male and female household heads, respectively. The questions explored employment changes in the past five years, thus paralleling the five-year span of the mobility retrospective. Detailed information was gathered on a maximum of six jobs for each respondent. For each job, the respondent

was asked the occupation and industry (classified by a 6-digit census code), employer and place of employment (if the latter was within the county it was recorded by HASE-defined neighborhood), hours of work, and earnings.

Household Composition, Income, Ethnicity, and Religion. The seventh module gathered background information on household members for comparison in subsequent survey waves and to help explain the household's demand for housing services. Age, sex, relationship to the respondents, current school enrollment, and grade were recorded for all members of the household including lodgers. Information on previous-year employment status was obtained for household members over 18. The household's income from all sources was recorded. Major payments for child care, alimony, and the like were noted. The final portion addressed household ethnicity and religion, and asked about respondents' awareness of the allowance program.

Supplementary Forms. On the contact card the interviewer recorded the date and time of contact with the respondent. Space was provided for multiple contact attempts. The validation form recorded the results of brief reinterviews that were conducted to check the quality of fieldwork. Validation respondents were randomly chosen from those who had completed interviews. The reinterview verified that certain questions were asked in the original interview and repeated certain other questions. Any discrepancies revealed by comparing the validation form with the respondent's original questionnaire were investigated and resolved by the field staff or Rand.

When a respondent refused to be interviewed, the circumstances were fully recorded on the refusal report. It identified how the refusal was made, by whom, and for what reason. The strength of the refusal was also indicated, and the respondent's statements were reproduced as closely as possible. Based on that information, field staff decided whether the respondent might be persuaded to change his mind. The respondent's personal characteristics--sex, age, and race--were also recorded to help determine if specific groups were being systematically excluded from the study.

The vacancy report was filled out when the interviewer discovered that a housing unit on the sample list was vacant. Through direct observation of the property or by questioning a neighbor or rental agent, the interviewer recorded information on the unit's recent tenure.

Site II, Wave 1

To simplify survey administration, most parts of the three instruments were merged. Extensive skip patterns were used to direct respondents to questions appropriate for their housing type. In the unmerged portions, the "Characteristics" and "Housing Expenses" modules, the former tenant/homeowner instrument was divided so that the two household types were addressed separately rather than together.[10]

Introduction. As appropriate for the new, largely merged instrument, the introduction was revised and enlarged to provide a more detailed description of the respondent and better guidance for the skip patterns to be followed in subsequent modules.

Housing Expenses. Provision was made to record utility costs in the aggregate; many residents received one bill for two or more utilities so were unable to distinguish individual costs.

Mobility History. Questions about rent, market value of unit, and utilities used in prior residences were dropped.

Employment History. For the self-employed, who technically do not draw salary, questions about salary amount were dropped.

Household Composition, Income, Ethnicity, and Religion. For respondents who could not distinguish individual amounts of income received from more than one source, provision was made to record an aggregate amount.

Evaluation of Housing Allowance Program. A new "attitude module" was added for probing respondents' awareness, opinions, and expectations of the allowance program. The TH11 survey had been

[10] So few lodgers responded to the baseline survey that the lodger variables from these modules were deleted from the file.

conducted well before the program began, so questions about it were inappropriate then. In Site II, however, the first survey overlapped the beginning of enrollment. Respondents were queried about the possible effect of the program on their household, their neighborhood, and the county as a whole. Other questions sought their attitudes about general topics such as government, minorities, landlords, their residence, and their neighborhood. Unlike the rest of the instrument, most attitude questions were open-ended and the responses were recorded verbatim.[11]

After leaving the respondents, the interviewer was asked to indicate the race of each household head and estimate the household's income.

Supplementary Forms. The contact card was expanded into the unit record folder, a form on which the interviewer recorded basic interview information: the date and time of contact with the respondent, whether the contact was in person or by phone, and the result (completion of interview, refusal to be interviewed, failure to contact, etc.).

Site I, Wave 2

Characteristics. Questions on the household's use of its yard were dropped. Questions on race and nationality changes in the neighborhood were modified to questions about changes in general types of people (e.g., more students, more elderly, fewer undesirable people). For the first time, residents were asked whether they were satisfied with their housing units.

Housing Expenses. Questions about problems with insurance (such as policy cancellation) were replaced by questions about insurance coverage for repairs and improvements. Eliminated were questions about work done for the landlord by the tenant, and whether or not the landlord was a relative.

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[11] This part of the instrument is documented in an attitude-module codebook for this and each later household survey file (see "File Documentation" in Sec. V).

Mobility and Employment History. In these modules, distinction was made between first-time respondents and respondents interviewed at the same address in the prior wave. The former were administered the long forms of these modules (DL, EL, FL); prior-wave respondents were given the short forms pertaining only to the past year (DS, ES, FS) and were relieved of repeating information already given. This instrument newly queried both types of respondents about any problems they encountered while searching for their current residence. Questions on how a hypothetical increase in monthly income would affect the household's demand for housing were dropped.

Household Composition, Income, and Ethnicity. Questions regarding religion were dropped.

Supplementary Forms. Space was added to the refusal report (retitled the refusal/breakoff report) to allow interviewers to record the circumstances under which respondents prematurely terminated an interview.

Site II, Wave 2/Site I, Wave 3 (Identical Instruments)

The instrument was altered to reduce the burden on prior-wave respondents. Data on the housing unit's address, description, and name(s) of household head(s) were collected at the beginning of fieldwork and printed on a household information sheet (TH/IS) attached to each instrument. At various points in the interview, the respondent was asked to verify TH/IS information; if it was correct, he was skipped over several subsequent questions.

Characteristics. Questions about the presence and condition of neighborhood facilities such as day-care centers and clinics were dropped.

Housing Expenses. This module was augmented with questions on whether a market intermediary such as a building contractor participated in housing repairs, how the repairs were financed, and the household's satisfaction with the work. Respondents were no longer asked about large improvements made just after the household moved in.

Mobility History. The distinction between first-time and prior-wave respondents was preserved, but the long and short forms were merged and the questions renumbered so that prior-wave respondents were asked the first 26 questions and first-time respondents were asked the remaining questions. Questions about the most recent residence were augmented to inquire whether occupants did any work for the landlord, received free or reduced rent in return, and about the types of people moving in and out of the neighborhood.

Employment History. The long and short forms were merged and skip patterns added to distinguish first-time from prior-wave respondents.

Evaluation of Housing Allowance Program. The interviewer was no longer asked to estimate the household's income.

Supplementary Forms. Sometimes an interview did not take place for a reason other than refusal, breakoff, or vacancy. For example, the building may have been demolished or converted to commercial use, or the residents may have been unavailable due to extended travel or illness. The noninterview form was added for recording such reasons, as well as the name, age, and race or ethnic group of the male and female heads of household.

Site II, Wave 3/Site I, Wave 4 (Identical Instruments)

Characteristics. Respondents were no longer asked about their satisfaction with the number and size of the rooms in their housing units. Questions were added to elicit respondents' feelings about new people moving into the neighborhood.

Supplementary Forms. A new data retrieval form was used when respondents who had completed interviews had to be recontacted for critical missing information. A combined refusal/breakoff/ noninterview report was used for explaining why an interview was not begun or completed.

Site II, Wave 4

The TH24 instrument was similar to that used for TH23, with minor revisions to clarify ambiguities and resolve fielding problems.

## Residential Building Survey Instruments

Through direct observation, the survey of residential buildings gathered data on the physical characteristics and condition of residential buildings, the properties on which they stood, and their immediate neighborhoods. Observers conducted the survey on the sampled property unless the resident objected or access was physically prevented. Then, they observed the building from an off-property vantage point. Observations were restricted to the exteriors of all buildings and the interior public areas (e.g., hallways, lobbies) of multiunit structures.

### Site I, Wave 1

The baseline instrument addressed seven topics:

1. Property characteristics such as the number, type, and condition of buildings.
2. Neighborhood characteristics such as land uses, building types, and street conditions.
3. Building's use and tenancy.
4. Building's physical characteristics, such as type of structure and principal construction materials.
5. Presence and condition of landscaping and tenant facilities such as parking spaces.
6. Condition of the roof, walls, foundation, and other characteristics of the building's exterior.
7. Condition of interior public areas in multiunit dwellings.

Questions on quality and condition were of the simple evaluative type that required observers to average the ratings for an item showing more than one condition (e.g., part of a wall surface might be missing a large piece of plaster, whereas the rest was in good condition).

Site II, Wave 1

For ease of administration, the questions were grouped into two modules pertaining to the property/neighborhood and building, respectively. To obtain more precise and accurate ratings, the simple evaluative questions were replaced by question grids, which allowed observers to indicate within broad ranges what portion of an evaluated item fit each rating category. For each module we developed an information sheet, a form preprinted with information obtained at the beginning of fieldwork about property and building characteristics such as address, location, description, and ownership. The information sheets were attached to each instrument, and the observer was no longer required to record the information they contained unless changes had occurred. Supplementary forms were created to differentiate the substantive and administrative portions of the observation.

Property/Neighborhood Characteristics. This module, completed only once for each property, covered topics 1 and 2 listed above. The data were later copied onto the records of other buildings on the same property.

Building Characteristics. The second module, completed for all buildings scheduled for observation, covered topics 3 through 7.

Supplementary Forms. The building record folder provided space for the observer to record observation attempts, the outcomes of those attempts, and the final status of all observations (e.g., completion, property inaccessible). Other questions determined the feasibility of an off-property observation if an on-property observation was impossible.

Although this survey did not require a respondent, the observer notified the building's occupant (except in buildings with three or more units) about the impending observation. If the occupant refused to allow the observation or requested that it be terminated, an observation was attempted off the property. If that too was unsuccessful, the refusal/breakoff report was filed. It noted whether the attempt was forestalled or broken off, the characteristics

of the tenant or owner who refused permission for the observation, any reasons given, and the vehemence of the refusal.

As a check on the quality of fieldwork, a sample of completed observations was validated. Sometime after the original observation, a second observer revisited the building and answered a number of questions (taken from the instrument) on the validation form. Discrepancies between validation and original answers were investigated and resolved by the field staff or Rand.

Site I, Wave 2/Site II, Wave 2/Site I, Wave 3

The main instruments are identical to the RB21 instrument.

Supplementary Forms. The validation form was separated into two modules pertaining to the property/neighborhood and building, respectively. In the RB13 instrument, the property/neighborhood validation module was expanded to include all questions in the corresponding instrument module.

Site II, Wave 3/Site I, Wave 4 (Identical Instruments)

To obtain still more precise evaluations, the question grids were replaced by pie charts requiring observers to indicate how many or what portion of an item (to the nearest 10 percent) fit each rating category. The validation form was replaced by a duplicate of the original instrument, so the entire observation was repeated for the validation sample of buildings.

Site II, Wave 4

Questions on the refusal/breakoff report were exempted from validation.

## Neighborhood Survey Instruments

The neighborhood survey gathered information on the physical characteristics of the entire county in each site, with HASE-defined neighborhoods and street segments as the units of observation. The survey's two parts corresponded to the two observation units. For the local sources survey (NS), fieldworkers compiled facts about each

neighborhood by means of secondary research; for the street observation survey (NO), fieldworkers recorded the characteristics of each street segment by means of direct observation. (A street segment is both sides of a length of street between intersections.) The two parts had separate instruments and produced separate data files.[12] Collectively, neighborhood survey data contribute to analyses of the effect of location on housing; the data may also help explain differences in the views and behavior of the landlords, tenants, and homeowners interviewed in our other surveys.

We divided each county's territory into mutually exclusive neighborhoods, attempting to make the boundaries conform to those of 1970 census blocks, enumeration districts, and local planning districts. In the urbanized portion of the county, neighborhoods were small and configured to contain relatively homogeneous populations and housing stocks; rural neighborhoods were larger and less homogeneous. Population size varied, most neighborhoods inhabited by 2,000 to 4,000 persons. The instruments varied slightly according to the availability of data in each site.

Local Sources, Site I, Wave 1

The instrument's multipart questions covered land-use patterns in the neighborhood; access to facilities such as fire stations and hospitals; new facilities planned; access to services such as public transportation and utilities; characteristics of highways, arterials, planned highways, and railroads; mileage of all public streets and roads; size and use of lakes, rivers, and streams; effect of soil limitations on residential improvement; flooding; and air and noise pollution levels.

Fieldworkers identified and abstracted relevant information from local sources, both public and private. Data about access to public facilities and services were obtained primarily from public records. Railway companies and the state department of transportation provided

[12] Nevertheless, the unit of analysis is the same for both surveys because the NO data are aggregated to the neighborhood level for analytic use.

maps for measuring railroads and roadways. Rarely did the sources present the information in a form directly applicable to a HASE neighborhood. Data had to be measured and then transformed as required by the survey instrument, for example, map distance converted to mileage, or countywide data disaggregated.

Local Sources, Site II, Wave 1

The question on land-use patterns was omitted from the Site II instrument. Questions about school and crime statistics were added.

Local Sources, Site I, Wave 4

Questions on employment statistics were added. The following questions were dropped because little or no change was expected in the data: planned facilities; public streets and roads; lakes, rivers, and streams; effect of soil limitations on residential improvement; and flooding.[13]

Local Sources, Site II, Wave 4

Questions on employment statistics were not added to the Site II instrument; questions about lakes, rivers, and streams were not dropped. The noise-pollution question was deleted.

Street Observation, Site I, Wave 1

For each street segment in the county, the instruments elicited facts and judgments recorded by an observer who was driven slowly down the street. The first group of questions were evaluative, asking the observer to rate the segment's residential buildings and their landscaping, urban vacant land, the condition of the street and sidewalks, and overall cleanliness (on a four-point scale from excellent to poor). The remaining questions were descriptive, asking the observer to indicate the presence of special features such as construction activity and abandoned buildings or vehicles, and the

[13] Though they appeared in the instrument, questions on land-use patterns and noise pollution were later dropped from the file for lack of adequate data.

presence or absence of 18 specified land uses, including retail stores, cropland, and several residential categories.

To check the quality of fieldwork, observations were repeated for street segments in the validation sample and segments forming the boundary between two neighborhoods.

Street Observation, Site II, Wave 1

Land-use categories that proved too general were divided, raising the total to 21.

Street Observation, Site I, Wave 4

To obtain evaluative ratings that were more consistent than the subjective averages elicited at baseline, this instrument directed observers to record the proportion or number of a characteristic (e.g., residential buildings) fitting each of four rating categories. The categories themselves were made more descriptive and specific to the item being evaluated.

To obtain more precise land-use data, this instrument called for an estimate of the percentage of the segment devoted to each land-use category, not simply its presence or absence. The six categories of residential use--requiring subjective judgments about building age--were coalesced into a single residential category.

Street Observation, Site II, Wave 4

To eliminate the confusion observers had experienced in trying to distinguish such land-use categories as "urban vacant land" and "rural unimproved land," all references to urban and rural were dropped. "Urban vacant land" was changed to "vacant lots," and four ambiguous rural categories were collapsed into a single category, "farmland, unimproved land."

# III. USING THE SURVEY FILES

For analytic purposes, a survey record can be viewed from two perspectives--as the carrier of substantive data and as the representative of a particular sample element. In applying the HASE survey files to their analyses, users must determine that the records they select contain the types and amounts of data desired and represent the sample elements of interest. This section provides information for making that determination and offers guidelines for linking records to form analysis subsamples.

## CONDITION OF SUBSTANTIVE DATA AND SAMPLE ELEMENTS

### Data Completeness

As noted in Sec. II, except for the baseline files, each file contains a record for every sample element scheduled for survey in that wave. However, since interviews and observations were not always completed for the entire sample list, some records contain incomplete data. Those records are either field-incomplete or dummy records.

A field-incomplete record is missing some or all of the data sought in the interview or observation. The revised final status code category (variable FSCCAT) indicates why a record is incomplete:[1]

- The interview or observation was not desired for this survey, usually because the property had changed tenure (e.g., a rental property eligible for the landlord survey became a homeowner property eligible for the household survey).
- The property, building, or unit was demolished, condemned, or converted to nonresidential use.

[1] FSCCAT also indicates field-completeness, i.e., that a record contains usable information.

- The property, building, or unit was found to be vacant.
- The respondent was unlocatable or unavailable due to extended travel, illness, or a language problem.
- The respondent refused or prematurely terminated the interview or observation.

A dummy record is a placeholder for a property, building, or unit that was inadvertently not surveyed during the wave in question (e.g., because of an error in the address). It contains no survey data, only header variables and a few administrative derived variables. The presence of dummy records on a landlord, residential building, or household survey file is indicated by the variable DUMREC.

Field-incomplete and dummy records are in the files only to account for individual sample elements and facilitate cross-file linkages. Users who do not need to link different files should delete those records from their analysis subfiles.

Other indicators signal the completeness of a specific part of the field-complete records, such as the income data on household survey records (YCMPLT) and the revenue and expense data on landlord survey records (INDREFC). These indicators are useful because even field-complete records can lack data because of nonresponse to particular questions or groups of questions.

Use of Survey Variables versus Derived Variables

As noted in Sec. II, we constructed a set of derived variables--usually several hundred per file--and added them to the records of survey responses for use in HASE analyses. Derived variables take several forms, each serving a specific purpose:

| Form | Purpose |
|---|---|
| Sample-selection indicators | Allow rapid selection of analysis subsamples along various dimensions. |
| Identifiers | Enable the tracking of sample elements across survey types and years. |
| Aggregations or transformations of survey responses | Provide more analytically useful information than provided by the raw data. |
| Information from related surveys or other data bases | Even out sample sizes and supply valid data from a previous wave. |
| Sampling weights | Enable the records jointly to portray the population from which the survey sample was drawn. |

Derived variables were built with great care, and both the construction algorithms and the resulting data were thoroughly audited for accuracy and consistency.[2] Where possible, missing data were estimated or imputed. Values were estimated by reasoning from the responses of other sample elements having similar characteristics; estimation procedures were incorporated in the variable's method of construction. Values were imputed by reasoning from other attributes of the particular sample element for which data were missing. Imputed values were verified by checking the hardcopy questionnaires or data from a related survey file, and are reported in the audit reports.

Therefore, derived variables not only provide analytically useful combinations or transformations of data but also compensate for inadequate survey data. In contrast, the survey variables are coded exactly as recorded on the questionnaires to provide an accurate

[2] That is, we audited for consistency within a file. Longitudinal audits were not regularly done for any variable, so the user should be alert for unexplained fluctuations in values over time.

account of survey responses. Although clearly erroneous values were corrected or replaced with audit codes, values that were suspect but not clearly wrong were left unaltered. File users should be alert for occasional survey values that seem inconsistent with other data.

Though derived variables were designed to meet the needs of HASE analysts, they should be applicable to most non-HASE analyses; we recommend their use over survey variables where possible. Appendix D lists the derived variables for each survey type, specifies the files on which they appear, and indicates the codebooks in which they are documented.

Sample Element Identifiers

A simple system of identifiers permits users to link the records of related sample elements within and across the landlord, household, and residential building survey files. All records are linked to sampled properties. The basic property identifier is the alternate tax parcel (ATP) number, a six-digit number assigned by Rand to each sampled property. ATP numbers are keyed to, and keep confidential, the real tax parcel (RTP) numbers in the county tax assessor's records. Like all identifiers, ATP numbers remain the same across files for all records associated with a particular property.

Besides identifying unique properties, ATP numbers indicate the sampling frame from which the property was chosen and whether the property changed configuration during the four survey waves. Table 3.1 lists the ATP number ranges assigned for those purposes. As the table shows, the numbers assigned to baseline HASE panel properties overlap the two sites, so the files should be kept separate to avoid erroneous matches. The property types identified in the table are explained below.

Panel Augmentation Samples. The sampling frame varied because the HASE panel was augmented annually with a sample representing new residential construction, and at other times with samples of federally

Table 3.1

ATP NUMBER RANGES AND ASSOCIATED PROPERTY TYPES

| Property Type | Wave of Origin[a] | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| | *Site I* | | | |
| Baseline HASE panel | 000001-119999 | | | |
| New-construction sample | | 120000-129999 | 130000-134999 | 640000-649999 |
| Subsidized housing sample[b] | | | 135000-135999 | |
| Split/merger | | 560000-569999 | 600000-609999 | 610000-619999 |
| | *Site II* | | | |
| Baseline HASE panel | 000001-499999 | | | |
| New-construction sample | | 800000-804999 | 810000-819999 | 820000-829999 |
| Residential hotel sample[c] | | 805000-805999 | | |
| Split/merger | 500000-509999 | 910000-919999 | 920000-929999 | 930000-939999 |

SOURCE: Compiled by HASE staff.

[a]Once a property was assigned an ATP number, it was retained in all subsequent waves unless the property split or merged.

[b]There was no separate subsidized housing sample in Site II because subsidized housing was included in the original sampling frame. The only way to identify Site II subsidized housing units is through variable REVPS (values 34 through 38).

[c]There was no comparable sample in Site I because residential hotels did not exist there.

subsidized housing and residential hotels.[3] The sampling frames indicated by the ATP number ranges in Table 3.1 are as follows:

- The county's entire population of residential tax parcels (as of March 1973 for Site I, December 1973 for Site II), from which the baseline HASE panel was ultimately chosen.
- Properties for which residential building permits were issued in the county, from which a new-construction sample was drawn each year after baseline.[4]
- The 1975 population of federally subsidized housing units in Site I and the 1975 population of residential hotels in Site II.[5]

Properties That Changed Configuration. The inclusion of a property in the HASE sample depended on its characteristics when the sampling frame was defined, so we had to account for all subsequent changes to the property. We were particularly interested in

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[3] Elements of the new-construction sample were empaneled after the annual fieldwork period. Therefore, in speaking of the postbaseline surveys, we distinguish between the prefieldwork sample, referring to all sample elements scheduled for survey (previously empaneled elements plus the current wave's new-construction sample), and the postfieldwork panel, referring to previously empaneled elements plus the newly empaneled elements of the new-construction sample.

[4] In each site, an annual sample of 60 to 70 properties was drawn from the building permits issued two years earlier. After they were surveyed, about 40 properties for which the most data had been obtained were empaneled. Field problems in Site II prevented our surveying the wave 2 new-construction sample until wave 3. Selection of the new-construction samples is fully described in E. Wayne Hansen and Marsha E. Baran, Augmenting the HASE Panel of Residential Properties, Site I, The Rand Corporation, N-1448-HUD, forthcoming, and E. Wayne Hansen and Patricia Boren, Augmenting the HASE Panel of Residential Properties, Site II, The Rand Corporation, N-1614-HUD, forthcoming.

[5] The subsidized housing sample consisted of 42 properties; the residential hotel sample, 3 properties. Unlike the new-construction samples, these samples were empaneled at the beginning of fieldwork in the relevant survey waves, not afterward.

properties that split (were subdivided) or merged (were consolidated with another).

Fieldworkers usually discovered a split or merger in one of two ways: (a) in answering the property description section of the landlord survey questionnaire, the respondent said that a portion of the original property had been split off or merged, or (b) prefieldwork searches of the tax assessor's records revealed changes in the property's RTP or land area. Splits occurred more frequently than mergers, but both were uncommon: a total of 28 sampled properties split, and 8 merged. Whenever properties split or merged, the ATP numbers for the original configurations were retired and new numbers for the new configurations were added.

All splits and mergers are indicated in the files by variable IDUPDT and are identified in the relevant audit reports. In addition, the landlord survey file variable PARATP identifies the original ATP number of a rental property before it split or merged. By checking PARATP for records that have ATP numbers in the split/merger range, the user can identify which previously assigned ATP numbers were retired because of property configuration changes. In the example below, ATP 102345 was retired at wave 3 because the property it represented was split into two smaller properties, identified by ATPs 601234 and 605678. On the wave 3 files, PARATP = 102345 for ATPs 601234 and 605678. A PARATP value appears only for the wave in which the split/merger occurred, so PARATP in the example is blank for wave 4.

```
Wave 1          Wave 2          Wave 3          Wave 4

                          ---->  601234         601234
                         |    (PARATP=102345)
102345          102345 -|
                         |
                          ---->  605678         605678
                              (PARATP=102345)
```

Buildings, Housing Units, and Neighborhoods. As noted in Sec. II, properties were the basic sample elements but not the only ones. To identify sampled buildings and units on sampled properties, we

added successive 3-digit numbers to ATP numbers. For example, 102345-002 is the ATP-BLDG number representing building 2 on property 102345. Similarly, 102345-002-006 is the ATP-BLDG-UNIT number representing unit 6 in the building just identified. Like ATP numbers, BLDG and UNIT numbers remained the same across all files for a particular building or unit unless a split or merger occurred. On the residential building survey files, the variables PATP and PBLDG are counterparts to PARATP on the landlord survey files; they identify the original properties and buildings, respectively, affected by a split or merger.

Neighborhoods are identified in the NS and NO files by the variable NBHDCODE. Street segments in the NO files are identified by the variable NBHDSEG. Like properties and units, street segments sometimes split, merged, or were demolished between the two administrations of the neighborhood surveys, waves 1 and 4. On the wave 4 files NBHDSEG codes of 600 to 799 identify new segments; survey variable SSB explains why the segment was added.[6] The retired NBHDSEG codes for the original segments are not identified in the wave 4 files or in any published report.

Analytic Units

Most survey instruments elicited information about entities other than the designated sample element. For example, landlord survey files contain data not only about the property but also the landlord (age, experience in real estate, opinions about the allowance program); buildings (age, usage, number of units in each); units (rent charged per unit, rent actually received); and the neighborhood (physical changes, new types of people in the area). Table 3.2 indicates the various levels of information for each survey type. Appendix B lists all topically related variables and where they are found on each file.

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[6] The names of all survey variables in this section are those on the Site II, wave 2 files. For the names of corresponding variables on other files, see Appendix C. The names of derived variables do not change from file to file.

Table 3.2

UNITS OF ANALYSIS ON THE HASE SURVEY FILES

| Sample Element | Respondent | Other Units of Analysis |
|---|---|---|
| | *Landlord Survey Files* | |
| Property | Landlord or his representative | Landlord: age, education, real estate experience<br>Building: age, number and type of units<br>Housing unit: rent, number of bedrooms<br>Neighborhood: type of neighbors, physical changes |
| | *Household Survey Files* | |
| Housing unit | Tenants, homeowners, mobile home residents, lodgers | Household: number, age, sex, and education of members<br>Property: number of acres<br>Building: number of floors<br>Neighborhood: type of neighbors, physical changes |
| | *Residential Building Survey Files* | |
| Building | None: observation, not interview | Property: condition of driveways, presence of swimming pool<br>Neighborhood: cleanliness, street condition |
| | *Neighborhood Local Sources Survey Files* | |
| Neighborhood | None: secondary research | --- |
| | *Neighborhood Street Observation Survey Files* | |
| Street segment | None: observation, not interview | --- |

SOURCE: Compiled by HASE staff.

## LINKING RECORDS

Most analysis designs using HASE data will require linking records in some manner--for example, linking a landlord with his tenants, linking the data for a certain property through time, and selecting an analysis sample of properties or households with common characteristics. This subsection defines what linkages the files permit, identifies useful variables for selecting and matching records, and points out where gaps may occur and why.

### Linking Properties

Property-level information appears for rental properties on the landlord survey files, and for homeowner properties on the household survey files. Guidelines for extracting both levels of information are given under the next two subheadings.

Property-level information is also found on the residential building survey files. Recall that the property-level portion of the instrument was administered only once per property, and the data were later copied onto the records of other buildings on the same property. To avoid duplicating property data when using the RB files, it is necessary to select one record per property. The variable ASTAT:PS indicates which building record contains the original property-level data.

Rental Properties. To link rental properties longitudinally, select records with the same ATP number across the site's landlord survey files. For example:

| | LL<br>ATP |
|---|---|
| Wave 1 | 102345 |
| Wave 2 | 102345 |
| Wave 3 | 102345 |
| Wave 4 | 102345 |

To link a rental property with its buildings and units, select records with the same ATP number across the landlord, residential building, and household survey files. To link the buildings with their units, select records with the same ATP-BLDG numbers on the RB and TH files. For example:

| | LL | RB | TH |
|---|---|---|---|
| | ATP | ATP-BLDG | ATP-BLDG-UNIT |
| Wave 1 | 102345 | 102345-001 | 102345-001-001 |
| | | | 102345-001-003 |
| | | 102345-004 | 102345-004-026 |
| Wave 2 | 102345 | 102345-001 | 102345-001-001 |
| | | | 102345-001-003 |
| | | 102345-004 | 102345-004-026 |
| Wave 3 | 102345 | 102345-001 | 102345-001-001 |
| | | | 102345-001-003 |
| | | 102345-004 | 102345-004-026 |
| Wave 4 | 102345 | 102345-001 | 102345-001-001 |
| | | | 102345-001-003 |
| | | 102345-004 | 102345-004-026 |

All building and unit records for rental properties have corresponding property-level records in the landlord survey files. Housing units were sampled independently of residential buildings, so a record for a sampled unit does not necessarily have a corresponding residential building record and vice versa.

Homeowner Properties. Because most homeowner properties consist of a single housing unit, information about the household, the unit, and the property appears together in one record on each of the household survey files. Those files also contain records for rental units, so homeowner records must be separated from tenant records. Variable CTENUR indicates whether the unit was rented or owned. To build a longitudinal account of homeowner properties, select records

having a CTENUR value of 2 and match ATP-BLDG-UNIT numbers across the site's files.

Unlike tenant units, homeowner units have no corresponding records in the landlord survey files, which pertain solely to rental properties. The only exception involves condominium/cooperative properties. If any sampled unit was found to be rental, the tenant version of the household survey was administered for that unit, the entire property was declared to be rental, and a landlord survey interview was sought. Therefore, the household survey record for that rental condominium/cooperative unit will correctly link with its corresponding property record on the landlord survey file. However, since records for homeowner units on the same property cannot be distinguished by different ATP numbers, they will also link with the landlord survey record--incorrectly. To identify such owner-occupied condominium/cooperative units and prevent erroneous linkages between the two files, match household survey records having a CTENUR value of 1 (rental property) with those having a variable A28:A value of 1 (owner-occupied condominium/cooperative unit). The erroneous linkage problem will not arise with condominium/cooperative properties lacking rental units; they were simply coded as homeowner properties and so were eligible only for the household survey.

Properties That Changed Tenure. It is somewhat more complicated to construct a longitudinal account of properties that changed from rental to ownership or from ownership to rental. In both cases, the first step is to build two longitudinal files: one of rental property records from the landlord survey files, and one of homeowner property records from the household survey files. Then the subfiles should be linked by ATP number. Any record that appears on both subfiles represents a property that has changed tenure.

Rental-to-ownership conversions are tracked through the landlord survey files. At the wave in which the conversion occurred, we left a field-incomplete record for the property in the landlord survey file. Its final status code (variable T5) of 261 signifies that the case was retired from the landlord survey and scheduled for the household survey because the property was converted to ownership tenure. Thus,

there are two property records for that wave: the field-incomplete record in the LL file and the homeowner property record in the TH file.[7] Users should ignore the blank information in the landlord survey record and use the homeowner property record.

Ownership-to-rental conversions are tracked through the household survey files, where tenure changes were simply recorded as changes in the value of CTENUR; no field-incomplete records indicate the change. The exception is when a homeowner to whom the household survey was addressed turned out to have rental units on his property, and to be living in one of those units. Such resident landlords were eligible for the landlord survey, not the household survey, so a field-incomplete record appears in the household survey file with an appropriate final status code (variable THSTAT = 162) for the wave in which the resident landlord's presence was discovered.

Turning from a general interest in all conversions, let us examine the history of a particular property, say, ATP 102345. In the example below, we see that its landlord survey record is missing at wave 4. Checking T5 on the wave 3 LL file, we find that the case was retired from survey because the property changed from rental to homeowner tenure. This tells us that the record on the wave 3 landlord survey file is field-incomplete because the property was eligible for the household survey instead of the landlord survey. At wave 4, the property-level record appears only in the household survey file.

| | LL | TH |
|---|---|---|
| Wave 1 | 102345<br>(T5=10, field-complete) | 102345-001-001<br>(CTENUR=1, rented) |
| Wave 2 | 102345<br>(T5=10, field-complete) | 102345-001-001<br>(CTENUR=1, rented) |
| Wave 3 | 102345<br>(T5=261, case retired) | 102345-001-001<br>(CTENUR=2, owned) |
| Wave 4 | -- | 102345-001-001<br>(CTENUR=2, owned) |

[7] This discussion ignores the special case of condominiums and cooperatives.

Properties That Became Nonresidential. Sometimes sampled properties, buildings, and units became nonresidential because they were demolished, condemned, or converted to commercial, industrial, or institutional use. For such cases, field-incomplete records appear on the relevant survey file for the wave in which the conversion occurred. No further record will be found in later files unless the property/building/unit was reconverted to residential use and returned to the survey agenda. Such changes are explained in LL file variable T5, TH variable THSTAT, and RB variable SRBSTA.

## Linking Buildings

Most building-level information is found in the residential building survey files. Longitudinal accounts are built by matching records with the same ATP-BLDG numbers across the site's files. Remember that the survey of residential buildings was administered to the full HASE sample only at waves 1, 2, and 4 in Site I and waves 1 and 4 in Site II. For most of the sample, therefore, records do not exist on the RB13, RB22, and RB23 files.

## Linking Housing Units

Most information specific to housing units is found in the household survey files. Longitudinal unit-level accounts are built by matching records with the same ATP-BLDG-UNIT numbers across the site's files.

## Linking Neighborhoods

Neighborhood-level records are on the local sources survey files. Although the street observation survey gathered information at the street segment level, the data are intended for analytic use at the neighborhood level. Accordingly, we aggregated NO street-segment data to the neighborhood level and added the data as derived variables to the NS files. Analysts should use those variables or other aggregates of NO data, not the original NO variables. The highly subjective nature of observations at the street segment level casts doubt on the validity of the unaggregated NO data.

Linking Landlords

ATP numbers cannot be used to select a sample of landlords from the LL property records because the same landlord could own more than one property. To select a landlord sample, match records on the variable DRID, a number identifying the designated respondent to the landlord survey. DRID, assigned once to each landlord, appears on all records pertaining to the properties, buildings, and units he owned. Therefore, DRID provides the link between the landlord and his tenants and between the landlord and all of his sampled properties.[8]

DRID also permits the user to select one record per landlord to avoid duplicating responses to questions about the landlord's real estate experience and perceptions of the neighborhood, which were asked only once of each landlord and copied onto the records for his other properties. To avoid overrepresenting the attitudes of landlords who owned more than one property, we built the indicator INDECENT, which flags one record for each landlord who completed the attitude module.

Linking Heads of Household

Each head of household was assigned a unique identifying number, HH1ID for the male head and HH2ID for the female head. The ranges of numbers are 350003-499990 for Site I households and 850008-999995 for Site II households. Because those numbers identify the heads (which may change) rather than the household itself, HH1ID and HH2ID are not the same for heads of the same household. To determine whether the household survey was administered to the same household heads each year, it is necessary to match on both HH1ID and HH2ID when linking records. If a household head no longer lived in the household, his identifier was dropped. If another person joined the household in his

[8] Recall that we use the terms "landlord" and "owner" loosely when referring to respondents for the landlord survey. Though the designated respondent was someone knowledgeable about the property's management and finances, he was not necessarily the property's legal owner. The latter is identified by the variable ORID. If the owner of a rental property also happened to be interviewed as a homeowner, ORID numbers on the landlord and household survey files will match.

place, a new identifier was assigned. The user may check to see if at least one of the heads was consistent across waves.

Missing Links

As we have seen, records will unexpectedly appear and disappear in longitudinal accounts because of splits/mergers, panel augmentation, partial fieldings, and tenure changes. Table 3.3 shows how the size of the files changed over the four annual waves due to the addition and deletion of sample elements. The additions shown are reflected in new records on the file for the wave indicated; deletions are reflected in missing records. The following paragraphs provide additional survey-specific explanations for gaps in longitudinal linkages.

Landlord Survey Files. A record for a new-construction sample property appears for the wave in which the property was added to the survey schedule. If the property was not subsequently empaneled, no further records will appear.

Household Survey Files. Similarly, records for all units on new-construction sample properties that were not empaneled were omitted in subsequent files. For split and merged units, the variable IDUPDT indicates that the identifier changed, but the household survey files have no variable comparable to LL variable PARATP to link splits and mergers with their original counterparts. The audit reports must be consulted for the specific ATP-BLDG-UNIT numbers of such units. Although lodger units in private residences were excluded from our sample design, we were alert for their occurrence and attempted to survey the occupants whenever such a unit was found. A record appears for each identified lodger unit (UNIT code 900-999) in the wave identified but is omitted in later files if the unit did not exist in subsequent waves. Finally, records were added to represent newly constructed units on panel properties; they are identified in the audit reports.[9]

[9] Unlike the units in the new-construction sample, these units were built on previously empaneled properties, so they were empaneled as soon as they were discovered, not after fieldwork.

Table 3.3

CHANGES IN RECORD COUNTS

| Sample Elements | Number of Records | | | |
|---|---|---|---|---|
| | Landlord Survey Files | Household Survey Files | Residential Building Survey Files | Neighborhood Street Observation Survey Files[a] |
| *Site I* | | | | |
| Baseline file total | 1,318 | 3,293 | 2,153 | 8,084 |
| *Wave 2* | | | | |
| Added | 43 | 139 | 77 | -- |
| Deleted | 1 | 43 | 5 | -- |
| Net change | +42 | +96 | +72 | -- |
| File total | 1,360 | 3,389 | 2,225 | -- |
| *Wave 3* | | | | |
| Added | 56 | 246 | -- | -- |
| Deleted | 69 | 94 | -- | -- |
| Net change | -13 | +152 | -- | -- |
| File total | 1,347 | 3,541 | 139[b] | -- |
| *Wave 4* | | | | |
| Added | 41 | 172 | 254 | 1,468 |
| Deleted | 74 | 92 | 154 | 237 |
| Net change | -33 | +80 | +100 | +1,231 |
| File total | 1,314 | 3,621 | 2,325 | 9,315 |
| *Site II* | | | | |
| Baseline file total | 1,417 | 3,559 | 2,515 | 12,152 |
| *Wave 2* | | | | |
| Added | 31 | 83 | -- | -- |
| Deleted | 4 | 39 | -- | -- |
| Net change | +27 | +44 | -- | -- |
| File total | 1,444 | 3,603 | 10[b] | |
| *Wave 3* | | | | |
| Added | 37 | 217 | -- | -- |
| Deleted | 87 | 124 | -- | -- |
| Net change | -50 | +93 | -- | -- |
| File total | 1,394 | 3,696 | 140[b] | -- |
| *Wave 4* | | | | |
| Added | 56 | 135 | 280 | 1,201 |
| Deleted | 104 | 145 | 238 | 420 |
| Net change | -48 | -10 | +42 | +781 |
| File total | 1,346 | 3,686 | 2,557 | 12,933 |

SOURCE: Compiled by HASE staff.

NOTE: The neighborhood local sources survey files are omitted because the record counts do not change; both the wave 1 and wave 4 files contain a record for each HASE-defined neighborhood in the county: 108 in Site I and 86 in Site II.

[a]In both sites, waves 2 and 3 were not fielded.

[b]File for this partially fielded survey contains only records for new buildings on previously empaneled properties and buildings on panel augmentation sample properties.

Residential Building Survey Files. In the files representing the full sample (RB11, RB12, RB14, RB21, RB24), records will appear and disappear for most of the same reasons as in the landlord and household survey files. Refer to the audit reports for details.

In summary, when a user finds a gap in the files, he should look for an explanation as follows:

1. Check the record's final status code in the previous wave (variable T5 on the LL files; THSTAT on TH; SRBSTA on RB) to see whether the sample element was retired from the survey schedule.
2. Check IDUPDT for the wave in which the gap appears to see whether the sample element identifier was changed because of an altered configuration. For rental properties, find the pre-change identifier by checking LL file variable PARATP; for other sample elements, check the relevant audit report.
3. Check the audit report for the site and wave in which the gap appears. In postbaseline reports, Sec. II, "Sample Accounting," and associated appendix tables, identify all records added or deleted in the files.
4. Consult the Housing Research Data Center or HUD, which will have a record of any file changes made after the audit reports were published.

## IV. APPLYING WEIGHTS TO THE SURVEY RECORDS

Data collected in a survey usually contain both sample- and record-selection biases. That is because fieldwork conditions often lead to compromises with the principles of random selection, and because survey nonresponse cannot be assumed random with respect to all variables of analytic interest. For use in analytic designs that require deriving population parameters from sample data, survey records must be weighted to obtain unbiased estimates.[1]

We developed an inexpensive and convenient procedure for weighting the HASE survey records to obtain nearly unbiased estimates of certain population parameters.[2] We used it to compute two types of weights. Panel weights, permanently assigned as each property entered the panel, reflect the property's exact sampling history from the sampling frame to the panel. Panel weights were assigned to the records for all empaneled properties, whether or not an interview or observation was completed. Applying those weights permits tracking changes in the county's baseline residential housing stock over time. Because most analysts are interested in records with complete survey data, we also calculated a set of field-complete weights for only the records representing completed interviews or observations in each file. Field-complete weights use panel weights in their construction; therefore, they benefit from the accuracy of the latter while excluding the analytically uninteresting field-incomplete records.

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[1] This statement does not apply to data from the HASE neighborhood surveys, which were addressed to complete enumerations, not samples.

[2] The method was developed by Daniel A. Relles for application to the baseline survey files. See Relles, Using Weights to Estimate Population Parameters from Survey Records, The Rand Corporation, N-1136-HUD, May 1981 (first issued as WN-10095-HUD, April 1978). Although devised specifically for HASE, the method is widely applicable, especially to data derived from survey research.

PANEL WEIGHTS

Sample-selection bias was introduced when the baseline sample was selected. The complex, multistage sampling procedure led to unequal but known selection probabilities for the properties in each of the 18 sampling strata. Classical weighting methods could be used to compensate for that bias; of greater concern was the record-selection bias introduced when the baseline panel was selected from the baseline sample. Records that were incomplete because of survey nonresponse were largely excluded from the panel. As a result, empaneled properties had uncertain selection probabilities--a problem for which classical methods offered little guidance.[3]

Our first task in calculating the panel weights, therefore, was to adjust the known probabilities of selection into the baseline sample by the unknown probabilities of record completion and selection into the panel. We decided to assume that the latter probabilities were equal for all panel members in a particular sampling stratum. We calculated stratum average weights by estimating the parent population represented by each stratum,[4] dividing the number of empaneled properties in that stratum into the population estimate, and obtaining the inverse of the quotient.

We then tested our assumption of equal panel selection probability within strata. Applying the 18 stratum weights to the

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[3] The entire sample selection process is more fully explained in E. Wayne Hansen and Christine D'Arc, User's Guide to HASE Data, Vol. 1: Overview, The Rand Corporation, R-2692/1-HUD, forthcoming, Sec. IV.

[4] This involved some fairly complex calculations. Briefly, we stratified empaneled properties by their current (baseline survey) characteristics and determined how many properties in each panel stratum were chosen from each baseline sample stratum. For each "cell" of properties at the intersection of a sample stratum and a panel stratum, we calculated a sampling probability and estimated the parent population, then summed the estimates of the various cells to obtain a population total for each panel stratum. These procedures are described in Timothy M. Corcoran, Selecting the Permanent Panel of Residential Properties, Site I, The Rand Corporation, N-1107-HUD, April 1981 (first issued as WN-9575-HUD, April 1978), and Corcoran, Selecting the Permanent Panel for Residential Properties: Site II, The Rand Corporation, N-1109-HUD, April 1981 (first issued as WN-9577-HUD, April 1977).

relevant panel records, we reproduced certain basic characteristics of the parent population, such as number of rental units, occupancy rate, and number of owner-occupied dwellings. We examined the efficiency of those panel-based estimates by comparing them with estimates of the same characteristics produced by weighting the full baseline sample. The latter served as control totals; since baseline sample weights were based on known sampling probabilities, the estimates they produced were presumably free of bias.[5] If the estimator efficiency coefficients were unacceptably low for a particular stratum, we subdivided the stratum into two more classes, calculated new constant probabilities of panel selection for the properties in each class, recomputed the weights, and reevaluated the efficiency of the estimates.

In the foregoing process, the 18 strata were ultimately expanded to 31 weighting classes for Site I and 34 for Site II. To illustrate the resulting baseline panel weights for both sites, Tables 4.1 and 4.2 define the classes and present the average weights for the properties they contain. The property records in each class were assigned individual weights, compounded from their known, particular probability of selection into the baseline sample and the assumed, common (per class) probability of selection into the panel. The individual record weights are documented by the variable SAMWT on each baseline file. Use of the average weights in Tables 4.1 and 4.2 will slightly reduce the efficiency of the estimator.

Using a procedure similar to that just described, we constructed exact sampling history weights for the properties in each augmentation sample as it entered the panel.[6]

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[5] Even for the substantial number of baseline sample properties for which a survey attempt was unsuccessful, we had obtained enough information in prior fieldwork to ascertain sampling probabilities and estimate the characteristics of interest.

[6] Those weights do not appear on the files but are documented in E. Wayne Hansen and Marsha E. Baran, Augmenting the HASE Panel of Residential Properties, Site I, The Rand Corporation, N-1448-HUD, forthcoming, and E. Wayne Hansen and Patricia Boren, Augmenting the HASE Panel of Residential Properties, Site II, The Rand Corporation, N-1614-HUD, forthcoming.

Table 4.1

BASELINE PANEL PROPERTY WEIGHTS, SITE I

| Weighting Class | | Number of Properties | | |
|---|---|---|---|---|
| Number | Description | Population Estimate | Baseline Panel | Weight |
| | *Urban Rental* | | | |
| | Lower tercile: | | | |
| 1 | Single-family | 274 | 115 | 2.38 |
| 2 | 2-4 units | 783 | 105 | 7.46 |
| 3 | 5-10 units | 70 | 29 | 2.41 |
| 21 | 11-20 units | 6 | 3 | 3.00 |
| 22 | 21+ units | 3 | 3 | 1.00 |
| | Middle tercile: | | | |
| 4 | Single-family | 697 | 239 | 2.92 |
| 5 | 2-4 units | 861 | 152 | 5.66 |
| 6 | 5-10 units | 104 | 58 | 1.79 |
| 23 | 11-20 units | 40 | 32 | 1.25 |
| 24 | 21+ units | 17 | 11 | 1.55 |
| | Upper tercile: | | | |
| 7 | Single-family | 750 | 93 | 8.06 |
| 8 | 2-4 units | 954 | 61 | 15.64 |
| 9 | 5-10 units | 19 | 10 | 1.90 |
| 25 | 11-20 units | 16 | 12 | 1.33 |
| 26 | 21+ units | 20 | 10 | 2.00 |
| | *Rural Rental* | | | |
| | Lower and middle terciles: | | | |
| 10 | Single-family | 294 | 63 | 4.67 |
| 27 | 2+ units | 243 | 76 | 3.20 |
| | Upper tercile: | | | |
| 11 | Single-family | 107 | 17 | 6.29 |
| 28 | 2+ units | 74 | 19 | 3.89 |
| | *Urban Owner* | | | |
| 12 | Lower quartile | 5,615 | 159 | 35.31 |
| 13 | Second quartile | 6,917 | 201 | 34.41 |
| 14 | Upper two quartiles | 13,208 | 103 | 128.23 |
| | *Rural Owner* | | | |
| 15 | Lower two quartiles | 3,041 | 99 | 30.72 |
| 16 | Upper two quartiles | 2,772 | 50 | 55.44 |
| | *Specialized Housing* | | | |
| 17 | Rooming houses | 37 | 17 | 2.18 |
| | Mobile homes: | | | |
| 18 | 1-10 units | 106 | 13 | 8.15 |
| 32 | 11-20 units | 4 | 1 | 4.00 |
| 33 | 21+ units | 9 | 6 | 1.50 |
| | *Landlord-occupied*[a] | | | |
| | 2-4 units: | | | |
| 29 | Lower tercile | 593 | 81 | 7.32 |
| 30 | Middle tercile | 517 | 89 | 5.81 |
| 31 | Upper tercile | 235 | 15 | 15.67 |
| Total | | 38,386 | 1,942 | 19.77 |

SOURCE: Calculated by HASE staff from the records of all baseline surveys, Site I.

NOTE: Weights were obtained by dividing the number of empaneled properties in each class into the population estimate for that class. The population estimates were based on the sampling history of the baseline sample drawn from an exhaustive sampling frame.

[a]Rental properties of 2 to 4 units with at least one unit occupied by the landlord or his agent.

Table 4.2

BASELINE PANEL PROPERTY WEIGHTS, SITE II

| Weighting Class | | Number of Properties | | |
|---|---|---|---|---|
| Number | Description | Population Estimate | Baseline Panel | Weight |
| | *Urban Rental* | | | |
| | Lower tercile: | | | |
| 1 | Single-family | 1,142 | 111 | 10.29 |
| 2 | 2-4 units | 1,136 | 137 | 8.29 |
| 3 | 5-9 units | 83 | 40 | 2.08 |
| 21 | 10-19 units | 13 | 6 | 2.17 |
| 22 | 20+ units | 6 | 6 | 1.00 |
| | Middle tercile: | | | |
| 4 | Single-family | 1,917 | 294 | 6.52 |
| 5 | 2-4 units | 844 | 155 | 5.45 |
| 6 | 5-9 units | 46 | 20 | 2.30 |
| 23 | 10-19 units | 9 | 4 | 2.25 |
| 24 | 20+ units | 7 | 5 | 1.40 |
| | Upper tercile: | | | |
| 7 | Single-family | 2,716 | 176 | 15.43 |
| 8 | 2-4 units | 290 | 48 | 6.04 |
| 9 | 5-9 units | 14 | 5 | 2.80 |
| 25 | 10-19 units | 4 | 3 | 1.33 |
| 26 | 20+ units | 20 | 20 | 1.00 |
| | *Rural Rental* | | | |
| | Lower and middle terciles: | | | |
| 10 | Single-family | 393 | 103 | 3.82 |
| 27 | 2+ units | 94 | 33 | 2.85 |
| | Upper tercile: | | | |
| 11 | Single-family | 276 | 58 | 4.76 |
| 28 | 2+ units | 7 | 3 | 2.33 |
| | *Urban Owner* | | | |
| 12 | Lowest quartile | 10,944 | 151 | 72.48 |
| 13 | Second quartile | 13,581 | 184 | 73.81 |
| 14 | Upper two quartiles | 25,661 | 82 | 312.94 |
| | *Rural Owner* | | | |
| 15 | Lower two quartiles | 2,071 | 90 | 23.01 |
| 16 | Upper two quartiles | 4,051 | 60 | 67.52 |
| | *Specialized Housing* | | | |
| 17 | Rooming houses | 5 | 2 | 2.50 |
| 18 | Mobile homes: | | | |
| | 1-9 units | 4 | 2 | 2.00 |
| | 10+ units | 14 | 11 | 1.27 |
| | *Landlord-occupied*[a] | | | |
| 29 | Lower tercile | 358 | 73 | 4.90 |
| 30 | Middle tercile | 223 | 70 | 3.19 |
| 31 | Upper tercile | 137 | 17 | 8.06 |
| | *Subsidized Housing* | | | |
| | Lower tercile: | | | |
| 36 | 10-19 units | 1 | 1 | 1.00 |
| 37 | 20+ units | 10 | 10 | 1.00 |
| 38 | Middle tercile: 20+ units | 6 | 6 | 1.00 |
| | Total | 66,083 | 1,986 | 33.27 |

SOURCE: Calculated by HASE staff from records of all baseline surveys, Site II.

NOTE: Weights were obtained by dividing the number of empaneled properties in each class into the population estimate for that class. The population estimates were based on the sampling history of the baseline sample drawn from an exhaustive sampling frame.

[a]Rental properties of 2 to 4 units with at least one unit occupied by the landlord or his agent.

FIELD-COMPLETE WEIGHTS

SAMWT values are permanent and can be applied to the same panel property records in any file to estimate parameters for the county's baseline population of residential properties in a particular wave. However, since those weights were developed for the full baseline panel, they must be applied to all panel records to produce unbiased estimates. Because of survey nonresponse, some panel properties will lack field-complete records in any given file. Most users will want to weight only the records that are field-complete in a file, not the full baseline panel. We had to develop a file-specific alternative to SAMWT that took account of the uncertain probabilities of selecting field-complete records from the entire panel (in postbaseline files, the baseline panel as augmented).

To solve the problem, we adapted the method described above for calculating panel weights. We assumed that the records of empaneled properties in the same weighting class had an equal probability of being selected for the field-complete subsample; estimated the parent populations represented by the field-complete records in each class;[7] and calculated average weights for the properties in each class (documented by the variable FSCWT). We then compared the weighted field-complete estimates with control estimates produced by applying panel weights to the full panel.

The field-complete weights generally produced good estimates, thus validating our assumption of equal selection probability within classes. However, several classes, particularly those containing mobile homes, have estimators that may be less efficient than some users desire. We did not subdivide the weighting classes and recalculate new field-complete weights, as we did with the panel weights. In the audit report for each file, we report the classes in which uncompensated biases remain, and leave it to users to make the appropriate adjustments.

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[7] In this case, we stratified HASE sample properties into weighting classes by their current-wave characteristics (documented by variable REVPS) and determined how many in each weighting class were chosen from each baseline panel stratum.

SURVEY-SPECIFIC WEIGHTS

FSCWT is a general-purpose weight for the files covering the full HASE sample.[8] Except for a handful of records judged unsuitable for weighting (most representing empaneled properties that merged with unsampled properties), all field-complete records (FSCCAT = 1) in those files were assigned a field-complete weight. We also calculated special-purpose weights for the files of a particular survey type. Like FSCWT, they may be used directly in standard weighting procedures found in statistical program packages such as SPSS. The survey-specific weights are described below.

Landlord Survey Files

Two special attitude weights were added to the wave 2 and wave 4 files for each site. WPATT, the property-level attitude weight, applies to rental property records with fully answered attitude modules (not necessarily field-complete). WPATT allows analysts to estimate the distribution of landlord attitudes by type of property. Because attitudes are a personal attribute, WLATT, the landlord-level attitude weight, was computed for one record per landlord.[9] WLATT allows analysts to estimate the distribution of attitudes among the county's landlords.

Household Survey Files

Because it is possible for a field-complete record to lack full information about household and income characteristics, special household-level weights were computed for use with records containing complete household and income information. HCPWT is applied to household-complete records (HCPLT = 0 or 1) and YCPWT is applied to income-complete records (YCPLT = 0 or 1).[10] Since the sampling unit

[8] That is, all LL, TH, and RB files except RB13, RB22, and RB23.

[9] For the derivation and use of WPATT and WLATT, see Roger Johnston, Audit of the Landlord Attitude Survey, Site II, Wave 2, The Rand Corporation, N-1329-HUD, September 1980.

[10] Remember that the time references are different for the two categories of data. Household data pertain to the current year, whereas income and expense data pertain to the previous year.

for the household survey is an individual dwelling, we calculated FSCWT for records representing vacant units as well as field-complete records. FSCWT can therefore be used to examine selected characteristics of both housing units and households, but HCPWT and YCPWT can be used to examine only the characteristics of households.

Residential Building Survey Files

For these files, BLDWT is the equivalent of FSCWT, although it is not strictly a field-complete weight. Covering a broader sample, BLDWT was built for all records with fully answered A modules pertaining to the property.

ADDING WEIGHTS TO OTHER SUBSAMPLES

To compute weights for other subsamples of records, such as attitude-complete household survey records, the user must determine the frequency distribution of his subsample on the variable REVPS, select the appropriate population parameter from the relevant audit report (for the attitude-complete example cited, total number of households) and divide the population parameter by the sample frequency for each value of REVPS (representing each weighting class). Before these new weights are used, population parameters should be computed and compared with those given in the audit report to be certain that the estimates are not biased.

## V. 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 those that are pertinent to the survey files.[1] They are indexed by subject, so some titles appear more than once. Within subjects, publications are listed in order of publication number, which is roughly chronological. A short narrative follows each list indicating 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 M. 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. R. 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 (ed.). June 1980. 338 pp.

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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.

Following the experimental design proposed in N-1025, we screened 217 Standard Metropolitan Statistical Areas (SMSAs) and 14 State Economic Areas (SEAs) for suitability as 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), 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.

## SURVEY SAMPLE DESIGN AND SELECTION

### General

N-1027-HUD. Preliminary Design for the Housing Assistance Supply Experiment. I. S. Lowry. July 1980. (First issued as WN-7866-HUD, June 1972.) 81 pp.

N-1037-HUD. Supplemental Design Papers for the Housing Assistance Supply Experiment. Housing Assistance Supply Experiment Staff. October 1980. (First issued as WN-7982-HUD, July 1972.) 61 pp.

N-1040-HUD. Sample Design for the Housing Assistance Supply Experiment. Timothy M. Corcoran, Eugene C. Poggio, Tiina Repnau. October 1980. (First issued as WN-8029-HUD, November 1972.) 139 pp.

N-1045-HUD. The Effects of Nonresponse on Record Completion in a Panel of Residential Properties. Timothy M. Corcoran. December 1980. (First issued as WN-8174-HUD, April 1973.) 55 pp.

N-1049-HUD. The Role of Household Survey Data in the Supply Experiment. Adele R. Palmer (ed.). (First issued as WN-8218-HUD, March 1973.) 111 pp.

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

Early HASE sample designs are proposed in N-1027 and N-1037. Most of the basic sample design is set forth in N-1040, to be later developed in detail for each site. Section IV of R-2630 updates N-1040, integrating the household survey and sampling issues raised in N-1049 and accounting for the estimated panel attrition rates in N-1045. Users are cautioned to be wary of specific details in R-2630 because sample design was further revised after the document's original publication.

Site I

N-1043-HUD. Preliminary Description of Sample-Selection Procedure. Eugene Poggio. October 1980. (First issued as WN-8101-HUD, January 1973.) 11 pp.

N-1047-HUD. Sample-Selection Procedures for Site I. Eugene C. Poggio. December 1980. (First issued as WN-8201-HUD, March 1973.) 17 pp.

N-1064-HUD. Sampling Nonresidential Properties: Site I. Timothy M. Corcoran. December 1980. (First issued as WN-8623-HUD, March 1974.) 23 pp.

N-1065-HUD. Survey Sample Design for Site I. Timothy M. Corcoran. February 1981. (First issued as WN-8640-HUD, March 1974.) 113 pp.

N-1066-HUD. Selecting the Baseline Sample of Residential Properties: Site I. Eugene C. Poggio. February 1981. (First issued as WN-8645-HUD, March 1977.) 107 pp.

N-1067-HUD. Characteristics of the Residential Baseline Survey Samples for Site I. Tiina Repnau. March 1981. (First issued as WN-8682-HUD, May 1974.) 59 pp.

N-1107-HUD. Selecting the Permanent Panel of Residential Properties, Site I. Timothy M. Corcoran. April 1981. (First issued as WN-9575-HUD, April 1978.) 89 pp.

N-1448-HUD. Augmenting the HASE Panel of Residential Properties, Site I. E. Wayne Hansen and Marsha E. Baran. Forthcoming.

R-1659-HUD. First Annual Report of the Housing Assistance Supply Experiment. October 1974. 85 pp.

The basic sample design for Site I is set forth in N-1065. Building on N-1040 and the findings from N-1049 and N-1045, it incorporates the research objectives stated in R-2630 and the scaled-down sample explained in R-1659. The mechanics of selecting the sample are briefly covered in N-1043 and N-1047. A casualty of the decision to trim the sample was the sample of nonresidential properties discussed in N-1064.

After the residential property sample was selected (as specified in N-1065), the screening survey was administered and the baseline sample selected. Procedures for selecting and stratifying baseline sample properties are described in N-1066. The characteristics of those properties are described in N-1067. The results of the baseline survey were used to select and stratify properties and units in the baseline HASE panel, documented in N-1107. At each later survey wave, the panel was increased by a complement of residential properties, as described in N-1448. Postsurvey audits occasionally uncovered sampling errors, which are explained in detail in the relevant audit reports.

Site II

N-1061-HUD. Sample Selection Procedure for St. Joseph County, Indiana. Sandra H. Berry, Daniel A. Relles, Eugene Seals. May 1981. (First issued as WN-8588-HUD, January 1974.) 41 pp.

N-1090-HUD. Selecting the Baseline Sample of Residential Properties: Site II. Daniel A. Relles. May 1981. (First issued as WN-9027-HUD, October 1975.) 108 pp.

N-1109-HUD. Selecting the Permanent Panel for Residential Properties: Site II. Timothy M. Corcoran. April 1981. (First issued as WN-9577-HUD, April 1977.) 121 pp.

N-1614-HUD. Augmenting the HASE Panel of Residential Properties, Site II. E. Wayne Hansen and Patricia Boren. Forthcoming.

The sampling experiences and procedures developed for Site I (N-1065, N-1066, N-1067, and N-1047) were used to select the Site II baseline sample, which is fully documented in N-1090. The technical procedures are described in N-1061. Selection of the HASE panel is documented in N-1109, and its periodic augmentation is described in N-1614. Corrections of individual sampling errors are described in relevant Site II audit reports.

## SURVEY DESIGN

N-1027-HUD. Preliminary Design for the Housing Assistance Supply Experiment. I. S. Lowry. July 1980. (First issued as WN-7866-HUD, June 1972.) 81 pp.

N-1028-HUD. Preliminary Description of Survey Instruments. Housing Assistance Supply Experiment Staff. July 1980. (First issued as WN-7883-HUD, June 1972.) 25 pp.

N-1055-HUD. Neighborhoods in Brown County. Bryan Ellickson. December 1980. (First issued as WN-8468-HUD, November 1973.) 55 pp.

N-1060-HUD. Market Intermediaries and Indirect Suppliers: Reconnaissance and Research Design for Site I. William G. Grigsby, Michael Shanley, Sammis B. White. July 1980. (First issued as WN-8577-HUD, February 1974.) 65 pp.

N-1071-HUD. The Screening Survey Instrument and Supplementary Forms: Site I. HASE Survey Group. March 1981. (First issued as WN-8688-HUD, July 1974.) 93 pp.

N-1072-HUD. Interviewer Training Manual for the Site I Screening Survey. HASE Survey Group. May 1981. (First issued as WN-8689-HUD, October 1974.) 125 pp.

N-1074-HUD. Codebook for the Survey of Tenants and Homeowners, Site I, Baseline. HASE Survey Group. March 1981. (First issued as WN-8809-HUD, December 1975.) 821 pp.

N-1075-HUD. Codebook for the Baseline Survey of Residential Buildings in Site I. Ann W. Wang, Charles W. Noland. March 1981. (First issued as WN-8810-HUD, February 1975.) 85 pp.

N-1076-HUD. Codebook for the Survey of Neighborhoods, Site I, Baseline. HASE Survey Group. March 1981. (First issued as WN-8811-HUD, June 1977.) 167 pp.

N-1077-HUD. Index to the Site I Maps. Doris Dong. March 1981. (First issued as WN-8819-HUD, August 1974.) 75 pp.

N-1080-HUD. Codebook for the Baseline Landlord Survey in Site I. Ann W. Wang, Doris Crocker, Stephanie Schank. May 1981. (First issued as WN-8976-HUD, March 1975.) 395 pp.

N-1089-HUD. Market Intermediaries and Indirect Suppliers: Reconnaissance and Research Design for Site II. William G. Grigsby, Michael Shanley, Sammis B. White. July 1980. (First issued as WN-9026-HUD, May 1975.) 57 pp.

N-1106-HUD. Are Further Survey Cycles Needed in Site I? Ira S. Lowry. March 1981. (First issued as WN-9541-HUD, July 1976.) 65 pp.

N-1122-HUD. Codebook for the Attitude Module of the Landlord Survey, Site II, Baseline. Phyllis L. Ellickson, David E. Kanouse, HASE Survey Group. May 1981. (First issued as WN-9801-HUD, April 1978.) 83 pp.

N-1123-HUD. Codebook for the Attitude Module of the Survey of Tenants and Homeowners, Site II, Baseline. Phyllis L. Ellickson, HASE Survey Group. May 1981. (First issued as WN-9802-HUD, November 1977.) 91 pp.

N-1127-HUD. Index to the Site II Maps. Housing Assistance Supply Experiment Staff. May 1981. (First issued as WN-9901-HUD, December 1977.) 75 pp.

N-1205-HUD. Neighborhoods in St. Joseph County, Indiana. John E. Bala. September 1979. 47 pp.

N-1321-HUD. Survey Operations for the Neighborhood Street Observation Survey, Site I, Wave 4. Marilyn Fisher. Forthcoming.

N-1487-HUD. Survey Operations for the Neighborhood Street Observation Survey, Site II, Wave 4. Marilyn Fisher. Forthcoming.

N-1537-HUD. Survey of HAO Clients Who Enrolled But Never Received Payments: Audit Report and Codebook. Diane Schoeff. Forthcoming.

N-1538-HUD. Survey of HAO Client Landlords, Site II: Audit Report and Codebook. Diane Schoeff. Forthcoming.

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

Early views of survey data requirements and strategy are presented in N-1027. That preliminary design is expanded into a framework for developing the landlord, tenant, and building survey instruments in N-1028. Final plans for the contents, strategy, and roles of the surveys in the experimental design are summarized in R-2630. A major revision, considered in N-1106, was the decision to reduce the survey agenda from six annual waves to four.

To aid in selecting the baseline sample, a brief screening survey was administered to the owners and occupants of a large marketwide sample of residential properties. The Site I instrument and interviewer instructions are documented in N-1071 and N-1072, respectively.

The first versions of the detailed survey instruments are documented in the baseline codebooks for Site I (Ns 1074-1076, 1080). The most important subsequent instrument change was the development of the attitude module, questions eliciting the respondent's knowledge of and opinions about the allowance program. Attitude modules were incorporated in the landlord and household survey instruments for Site II baseline (see N-1122, N-1123) and were added to the postbaseline landlord and household survey instruments in Site I. The detailed instruments are documented in the codebooks for each file (see "File Documentation," below). (For all instrument revisions, see Sec. II of this report.)

Unlike the other HASE surveys, which were addressed to samples, the neighborhood surveys were addressed to the entire county, with HASE-defined neighborhoods and street segments as units of observation. N-1055 and N-1205 present the rationale and procedures for defining neighborhoods. Fieldwork procedures and instrument changes for the street observation survey are detailed in N-1321 and N-1487. N-1077 and N-1127 inventory all maps to be used in the project, especially for the neighborhood surveys. For each map, the source, scale, date, description, and estimate of accuracy are provided.

Under contract to the Housing Allowance Offices (HAOs), we conducted a survey of clients who enrolled in the allowance program but terminated without ever receiving payments (documented in N-1537) and a survey of the landlords of program clients in Site II (documented in N-1538).

HASE fielded two other surveys that did not yield machine-readable data files. The survey of market intermediaries such as mortgage lenders, real estate brokers, and home improvement contractors is documented in N-1060 and N-1089 for the two sites, respectively.

## DATA MANAGEMENT

N-1029-HUD. Data Management System: Part I, Fieldwork Data and Data Transfer Specifications. G. Levitt. July 1980. (First issued as WN-7885-HUD, July 1972.) 15 pp.

N-1034-HUD. Data Management System: Part II, The Management of Data for Analysis. G. Levitt. February 1981. (First issued as WN-7953-HUD, August 1972.) 29 pp.

N-1042-HUD. Data Management System for the Housing Assistance Supply Experiment. C. M. Dodd, M. C. Fujisaki, G. Levitt. July 1980. (First issued as WN-8054-HUD, November 1972.) 51 pp.

N-1062-HUD. Baseline Data Systems Design, Implementation, and Operation Report. Gerald Levitt (ed.). May 1981. (First issued as WN-8611-HUD, March 1974.) 179 pp.

N-1098-HUD. HASE Data Systems: The HASE Audit and Analysis Support Package (HAASP). Eric Harslem, Michael Rogson. May 1981. (First issued as WN-9292-HUD, November 1975.) 63 pp.

N-1131-HUD. HAMISH Update System: Input Form Specifications. Zahava B. Doering, Susan Welt. May 1981. (First issued as WN-10029-HUD, January 1978.) 169 pp.

N-1132-HUD. Sample Maintenance Office Procedures Manual. Susan Welt. May 1981. (First issued as WN-10039-HUD, January 1979.) 357 pp.

N-1133-HUD. HAMISH Survey Support System: Technical Description. Zahava B. Doering, Susan Welt. May 1981. (First issued as WN-10057-HUD, May 1978.) 207 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. One of those systems, HAMISH, is documented in detail because of its crucial role in keeping track of the survey sample. N-1133 describes how HAMISH supported survey fieldwork. N-1132 details all procedures used in accounting for the survey sample. Instructions for coding HAMISH update forms are given in N-1131.

Although a few of its specific suggestions were not adopted, P-5494-1 sets forth the general philosophy governing data management and documentation in the Supply Experiment.

## FILE DOCUMENTATION

Codebooks and audit reports are the primary forms of documentation for the 40 HASE data files. The three types of codebooks summarize file contents: main-survey codebooks cover the

bulk of survey responses; attitude-module codebooks cover attitudes toward the allowance program for respondents to the landlord and household surveys; and supplemental codebooks cover derived variables. Audit reports assess the completeness and reliability of the data. Each file is represented by at least one codebook and one audit report. Since most users will be interested in a particular file, we cite codebooks and audit reports together by file rather than provide separate lists by publication type. Rand published the codebooks individually for each file, 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.

## Landlord Survey

### Site I, Baseline

N-1080-HUD. Codebook for the Baseline Landlord Survey in Site I. Ann W. Wang, Doris Crocker, Stephanie Schank. May 1981. (First issued as WN-8976-HUD, March 1975.) 395 pp.

N-1381-HUD. Supplemental Codebook for the Baseline Survey of Landlords, Site I. Kenneth Wong, Patricia Boren. September 1980. 258 pp.

N-1081-HUD. Audit of the Baseline Landlord Survey in Site I. Richard E. Stanton, Therman P. Britt. October 1979. (First issued as WN-8977-HUD, June 1977.) 201 pp.

### Site I, Wave 2

N-1189-HUD. Codebook for the Survey of Landlords, Site I, Wave 2. Patricia Boren. June 1979. 654 pp.

N-1363-HUD. Codebook for the Attitude Module of the Landlord Survey, Site I, Wave 2. Roger Johnston, Patricia Boren. January 1980. 94 pp.

N-1382-HUD. Supplemental Codebook for the Survey of Landlords, Site I, Wave 2. Kenneth Wong, Patricia Boren, Sally Trude. January 1980. 250 pp.

N-1398-HUD. Audit of the Landlord Survey, Site I, Wave 2. John W. Dawson. February 1981. 71 pp.

Site I, Wave 3

N-1349-HUD. Codebook for the Survey of Landlords, Site I, Wave 3. Patricia Boren. January 1980. 640 pp.

N-1364-HUD. Codebook for the Attitude Module of the Landlord Survey, Site I, Wave 3. Patricia Boren. February 1980. 64 pp.

N-1383-HUD. Supplemental Codebook for the Survey of Landlords, Site I, Wave 3. Kenneth Wong, Patricia Boren. February 1980. 265 pp.

N-1399-HUD. Audit of the Landlord Survey, Site I, Wave 3. FDG Staff. Forthcoming.

Site I, Wave 4

N-1351-HUD. Codebook for the Survey of Landlords, Site I, Wave 4. Patricia Boren. February 1980. 538 pp.

N-1365-HUD. Codebook for the Attitude Module of the Landlord Survey, Site I, Wave 4. Patricia Boren, Christina Witsberger. March 1980. 80 pp.

N-1384-HUD. Supplemental Codebook for the Survey of Landlords, Site I, Wave 4. Kenneth Wong, Patricia Boren. March 1980. 263 pp.

N-1400-HUD. Audit of the Landlord Survey, Site I, Wave 4. FDG Staff. Forthcoming.

Site II, Baseline

N-1104-HUD. Codebook for the Survey of Landlords, Site II, Baseline. HASE Survey Group. April 1981. (First issued as WN-9444-HUD, July 1976.) 579 pp.

N-1122-HUD. Codebook for the Attitude Module of the Landlord Survey, Site II, Baseline. Phyllis L. Ellickson, David E. Kanouse, HASE Survey Group. May 1981. (First issued as WN-9801-HUD, April 1978.) 83 pp.

N-1385-HUD. Supplemental Codebook for the Baseline Survey of Landlords, Site II. Patricia Boren, Kenneth Wong. December 1980. 236 pp.

N-1121-HUD. Audit of the Baseline Landlord Survey in Site II. Richard E. Stanton, Therman P. Britt. October 1979. (First issued as WN-9739-HUD, February 1979.) 159 pp.

Site II, Wave 2

N-1140-HUD. Codebook for the Survey of Landlords, Site II, Wave 2. Patricia Boren. May 1981. (First issued as WN-10294-HUD, December 1978.) 607 pp.

N-1142-HUD. Codebook for the Attitude Module of the Landlord Survey, Site II, Wave 2. Patricia Boren, Roger Johnston. May 1980. (First issued as WN-10422-HUD, February 1979.) 110 pp.

N-1386-HUD. Supplemental Codebook for the Survey of Landlords, Site II, Wave 2. Patricia Boren, Kenneth Wong. May 1980. 270 pp.

N-1401-HUD. Audit of the Landlord Survey, Site II, Wave 2. John W. Dawson and Roger Johnston. Forthcoming.

N-1329-HUD. Audit of the Landlord Attitude Survey, Site II, Wave 2. Roger Johnston. September 1980. 32 pp.

Site II, Wave 3

N-1352-HUD. Codebook for the Survey of Landlords, Site II, Wave 3. Patricia Boren. June 1980. 530 pp.

N-1366-HUD. Codebook for the Attitude Module of the Landlord Survey, Site II, Wave 3. Patricia Boren, Christina Witsberger. July 1980. 62 pp.

N-1387-HUD. Supplemental Codebook for the Survey of Landlords, Site II, Wave 3. Patricia Boren, Kenneth Wong. July 1980. 267 pp.

N-1402-HUD. Audit of the Landlord Survey, Site II, Wave 3. FDG Staff. Forthcoming.

Site II, Wave 4

N-1353-HUD. Codebook for the Survey of Landlords, Site II, Wave 4. Patricia Boren, Deborah Wesley. July 1980. 518 pp.

N-1367-HUD. Codebook for the Attitude Module of the Landlord Survey, Site II, Wave 4. Patricia Boren, Christina Witsberger. August 1980. 78 pp.

N-1388-HUD. Supplemental Codebook for the Survey of Landlords, Site II, Wave 4. Patricia Boren, Kenneth Wong. August 1980. 259 pp.

N-1403-HUD. Audit of the Landlord Survey, Site II, Wave 4. FDG Staff. Forthcoming.

## Household Survey

### Site I, Baseline

N-1074-HUD. Codebook for the Survey of Tenants and Homeowners, Site I, Baseline. HASE Survey Group. March 1981. (First issued as WN-8809-HUD, December 1975.) 821 pp.

N-1373-HUD. Supplemental Codebook for the Baseline Household Survey, Site I. Evelyn C. Casper. October 1980. 322 pp.

N-1097-HUD. Audit of the Baseline Household Survey in Site I. Lawrence Helbers. October 1979. (First issued as WN-9229-HUD, February 1979.) 125 pp.

### Site I, Wave 2

N-1190-HUD. Codebook for the Household Survey, Site I, Wave 2. Patricia Boren. July 1979. 1057 pp.

N-1368-HUD. Codebook for the Attitude Module of the Household Survey, Site I, Wave 2. Patricia Boren. January 1980. 94 pp.

N-1374-HUD. Supplemental Codebook for the Household Survey, Site I, Wave 2. Sally Trude, Evelyn Casper, Roberta Allen. January 1980. 299 pp.

N-1410-HUD. Audit of the Household Survey, Site I, Wave 2. Carole Beauchemin. Forthcoming.

### Site I, Wave 3

N-1309-HUD. Codebook for the Household Survey, Site I, Wave 3. Patricia Boren. November 1979. 1003 pp.

N-1345-HUD. Codebook for the Attitude Module of the Household Survey, Site I, Wave 3. Patricia Boren. January 1980. 112 pp.

N-1375-HUD. Supplemental Codebook for the Household Survey, Site I, Wave 3. Evelyn Casper, Roberta Allen, Sally Trude. February 1980. 302 pp.

N-1411-HUD. Audit of the Household Survey, Site I, Wave 3. FDG Staff. Forthcoming.

Site I, Wave 4

N-1358-HUD. Codebook for the Household Survey, Site I, Wave 4. Patricia Boren. March 1980. 892 pp.

N-1370-HUD. Codebook for the Attitude Module of the Household Survey, Site I, Wave 4. Patricia Boren. March 1980. 112 pp.

N-1376-HUD. Supplemental Codebook for the Household Survey, Site I, Wave 4. Roberta Allen, Evelyn Casper, Sally Trude. March 1980. 290 pp.

N-1412-HUD. Audit of the Household Survey, Site I, Wave 4. FDG Staff. Forthcoming.

Site II, Baseline

N-1112-HUD. Codebook for the Survey of Tenants and Homeowners, Site II, Baseline. HASE Survey Group. April 1981. (First issued as WN-9651-HUD, April 1977.) 903 pp.

N-1123-HUD. Codebook for the Attitude Module of the Survey of Tenants and Homeowners, Site II, Baseline. Phyllis L. Ellickson, HASE Survey Group. May 1981. (First issued as WN-9802-HUD, November 1977.) 91 pp.

N-1377-HUD. Supplemental Codebook for the Household Survey, Site II, Baseline. Evelyn C. Casper. December 1980. 276 pp.

N-1108-HUD. Audit of the Baseline Survey of Tenants and Homeowners in Site II. John E. Mulford. October 1979. (First issued as WN-9576-HUD, August 1978.) 97 pp.

Site II, Wave 2

N-1139-HUD. Codebook for the Survey of Tenants and Homeowners, Site II, Wave 2. Patricia Boren. May 1981. (First issued as WN-10293-HUD, October 1978.) 1019 pp.

N-1143-HUD. Codebook for the Attitude Module of the Survey of Tenants and Homeowners, Site II, Wave 2. Patricia Boren. May 1981. (First issued as WN-10432-HUD, March 1979.) 145 pp.

N-1378-HUD. Supplemental Codebook for the Household Survey, Site II, Wave 2. Evelyn C. Casper, Roberta Allen. May 1980. 289 pp.

N-1413-HUD. Audit of the Household Survey, Site II, Wave 2. FDG Staff. Forthcoming.

N-1173-HUD. Audit of the Household Attitude Survey, Site II, Wave 2. Marsha Baran. July 1979. 31 pp.

Site II, Wave 3

N-1359-HUD. Codebook for the Household Survey, Site II, Wave 3. Patricia Boren. May 1980. 908 pp.

N-1371-HUD. Codebook for the Attitude Module of the Household Survey, Site II, Wave 3. Patricia Boren. June 1980. 112 pp.

N-1379-HUD. Supplemental Codebook for the Household Survey, Site II, Wave 3. Roberta Allen, Evelyn Casper. July 1980. 286 pp.

N-1414-HUD. Audit of the Household Survey, Site II, Wave 3. FDG Staff. Forthcoming.

Site II, Wave 4

N-1360-HUD. Codebook for the Household Survey, Site II, Wave 4. Patricia Boren, Deborah Wesley. July 1980. 894 pp.

N-1372-HUD. Codebook for the Attitude Module of the Household Survey, Site II, Wave 4. Patricia Boren. August 1980. 111 pp.

N-1380-HUD. Supplemental Codebook for the Household Survey, Site II, Wave 4. Evelyn C. Casper, Roberta Allen. August 1980. 290 pp.

N-1415-HUD. Audit of the Household Survey, Site II, Wave 4. FDG Staff. Forthcoming.

## Residential Building Survey

Site I, Baseline

N-1075-HUD. Codebook for the Baseline Survey of Residential Buildings in Site I. Ann W. Wang, Charles W. Noland. March 1981. (First issued as WN-8810-HUD, February 1975.) 85 pp.

N-1078-HUD. Audit Report for the Baseline Survey of Residential Buildings in Site I. Larry A. Day. December 1979. (First issued as WN-8973-HUD, January 1976.) 121 pp.

Site I, Wave 2

N-1191-HUD. Codebook for the Survey of Residential Buildings, Site I, Wave 2. Patricia Boren. August 1979. 212 pp.

N-1389-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site I, Wave 2. Sally Trude, Patricia Boren, Beverly Lowe. January 1980. 136 pp.

N-1404-HUD. Audit of the Survey of Residential Buildings, Site I, Wave 2. Beverly F. Lowe. May 1981. 77 pp.

Site I, Wave 3

N-1405-HUD. Codebook for the Survey of Residential Buildings, Site I, Wave 3. Patricia Boren. March 1980. 161 pp.

N-1390-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site I, Wave 3. Patricia Boren, Sally Trude. March 1980. 136 pp.

N-1406-HUD. Audit of the Survey of Residential Buildings, Site I, Wave 3. Sandra S. Figge. May 1981. 29 pp.

Site I, Wave 4

N-1354-HUD. Codebook for the Survey of Residential Buildings, Site I, Wave 4. Patricia Boren. March 1980. 279 pp.

N-1391-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site I, Wave 4. Patricia Boren, Sally Trude. March 1980. 147 pp.

N-1474-HUD. Audit of the Survey of Residential Buildings, Site I, Wave 4. Sandra S. Figge. Forthcoming.

Site II, Baseline

N-1126-HUD. Codebook for the Survey of Residential Buildings, Site II, Baseline. HASE Survey Group. May 1981. (First issued as WN-9895-HUD, September 1977.) 181 pp.

N-1392-HUD. Supplemental Codebook for the Baseline Survey of Residential Buildings, Site II. Patricia Boren. November 1980. 115 pp.

N-1120-HUD. Audit of the Baseline Survey of Residential Buildings in Site II. Larry A. Day, Charles W. Noland. October 1979. (First issued as WN-9738-HUD, December 1977.) 92 pp.

Site II, Wave 2

N-1355-HUD. Codebook for the Survey of Residential Buildings, Site II, Wave 2. Patricia Boren. June 1980. 140 pp.

N-1393-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site II, Wave 2. Patricia Boren. June 1980. 112 pp.

N-1407-HUD. Audit of the Survey of Residential Buildings, Site II, Wave 2. Sandra S. Figge. Forthcoming.

Site II, Wave 3

N-1356-HUD. Codebook for the Survey of Residential Buildings, Site II, Wave 3. Patricia Boren. July 1980. 234 pp.

N-1394-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site II, Wave 3. Patricia Boren. June 1980. 129 pp.

N-1408-HUD. Audit of the Survey of Residential Buildings, Site II, Wave 3. Sandra S. Figge. Forthcoming.

Site II, Wave 4

N-1357-HUD. Codebook for the Survey of Residential Buildings, Site II, Wave 4. Patricia Boren, Deborah Wesley. August 1980. 274 pp.

N-1395-HUD. Supplemental Codebook for the Survey of Residential Buildings, Site II, Wave 4. Patricia Boren. August 1980. 145 pp.

N-1409-HUD. Audit of the Survey of Residential Buildings, Site II, Wave 4. Sandra S. Figge. Forthcoming.

## Neighborhood Survey

Site I, Baseline

N-1076-HUD. Codebook for the Survey of Neighborhoods, Site I, Baseline. HASE Survey Group. March 1981. (First issued as WN-8811-HUD, June 1977.) 167 pp.

N-1590-HUD. Supplemental Codebook for the Baseline Survey of Neighborhoods, Site I. Carol Hillestad. December 1980. 66 pp.

N-1115-HUD. Audit of the Baseline Neighborhood Survey in Site I. C. Lance Barnett. October 1979. (First issued as WN-9732-HUD, April 1977.) 41 pp.

Site I, Wave 4

N-1361-HUD. Codebook for the Survey of Neighborhoods, Site I, Wave 4. Patricia Boren, Carol Hillestad. March 1980. 207 pp.

N-1282-HUD. Audit of the Neighborhood Survey Site I, Wave 4. Carol E. Hillestad. November 1979. 53 pp.

Site II, Baseline

N-1128-HUD. Codebook for the Survey of Neighborhoods, Site II, Baseline. HASE Survey Group. April 1981. (First issued as WN-9949-HUD, December 1977.) 183 pp.

N-1596-HUD. Supplemental Codebook for the Baseline Survey of Neighborhoods, Site II. Carol Hillestad. December 1980. 38 pp.

N-1113-HUD. Audit of the Baseline Neighborhood Survey in Site II. John E. Bala. October 1979. (First issued as WN-9709-HUD, September 1977.) 55 pp.

Site II, Wave 4

N-1362-HUD. Codebook for the Survey of Neighborhoods, Site II, Wave 4. Patricia Boren, Carol Hillestad. August 1980. 202 pp.

N-1416-HUD. Audit of the Survey of Neighborhoods, Site II, Wave 4. Carol E. Hillestad. August 1980. 48 pp.

Documentation Support

N-1050-HUD. Compensating for Landlord Nonresponse in the Housing Assistance Supply Experiment. Adele R. Palmer. December 1980. (First issued as WN-8268-HUD, June 1973.) 75 pp.

N-1063-HUD. Baseline Audit Plan. Leonard Chesler and others. February 1981. (First issued as WN-8612-HUD, February 1974.) 143 pp.

N-1096-HUD. A Plan for Analyzing Nonresponse Bias: Survey of Landlords, Baseline, Site I. C. Peter Rydell, Richard E. Stanton. April 1981. (First issued as WN-9211-HUD, August 1975.) 57 pp.

N-1131-HUD. HAMISH Update System: Input Form Specifications. Zahava B. Doering, Susan Welt. May 1981. (First issued as WN-10029-HUD, January 1978.) 169 pp.

N-1132-HUD. Sample Maintenance Office Procedures Manual. Susan Welt. May 1981. (First issued as WN-10039-HUD, January 1979.) 357 pp.

N-1133-HUD. HAMISH Survey Support System: Technical Description. Zahava B. Doering, Susan Welt. May 1981. (First issued as WN-10057-HUD, May 1978.) 207 pp.

N-1136-HUD. Using Weights to Estimate Population Parameters from Survey Records. Daniel A. Relles. May 1981. (First issued as WN-10095-HUD, April 1978.) 63 pp.

N-1138-HUD. Completing the Supply Experiment. HASE Staff. May 1981. (First issued as WN-10223-HUD, June 1978.) 131 pp.

The survey codebooks define each variable, identify the corresponding survey question, and display response distributions. The 67 survey codebooks are of three types. Attitude-module codebooks document data gathered in the landlord and household surveys on respondents' attitudes toward the allowance program. The main-survey codebooks document the data gathered in the rest of the survey instrument. Supplemental codebooks document a set of analytic variables derived from original survey variables and added to the files. Most files are represented by a main-survey and supplemental codebook; most landlord and household survey files are also represented by attitude-module codebooks.[2]

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[2] The codebooks reflect file contents accurately for the most part but not in every detail. After codebook publication, some errors were discovered in the data, and the findings of sample accounting necessitated changes in sample sizes. As a result, response distributions published in the codebooks will not necessarily agree

As developed in N-1063 and carried out for the baseline survey files, the survey audit involved the following tasks:

1. A detailed review of fieldwork and interviewer performance.
2. Accounting for the survey sample by explaining adjustments to the HASE panel and determining whether all desired interviews or observations were completed.
3. Accounting for errors, inconsistencies, and missing data, and checking reasons for their occurrence.
4. Assessing potential biases and devising weights so that the records used in analysis collectively represent the sampled population.[3]

Background for the audit procedures in task 1 is given in N-1131, N-1132, and N-1133. N-1132 also provides a detailed description of basic sample accounting procedures. N-1050, N-1096, and N-1136 provide the theoretical underpinnings for task 4.

Wave 2 audits dispensed with task 1 and some of the details pertaining to response consistency in task 3, following the amended audit guidelines in N-1138.[4] The scope of audits for waves 3 and 4 was further reduced so that task 3 consisted of a description of the data-quality checks, minus their results. The conditions under which the later surveys were conducted resembled wave 2 so closely that we judged their data quality to be consistent with that of the wave 2

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with those calculated from the corrected files. In most cases the differences are slight. However, the discrepancy between the baseline files and main-survey codebooks (Ns 1074, 1075, 1080, 1104, 1112, and 1126) is considerable because those codebooks apply to the baseline sample, whereas the files (and supplemental codebooks) apply to the smaller baseline HASE panel.

[3] This portion of the audit did not apply to the neighborhood survey, which was addressed to the entire county, not a sample.

[4] The exception is the audit report for the Site II, wave 2 residential building survey, which was addressed to such a small sample that task 3 was confined to a description of error checks.

files.[5] Special audit procedures developed for attitude data are reported separately for the Site II, wave 2 landlord and household files. Otherwise, the audits of attitude data are incorporated in the regular landlord and household survey audit reports.

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[5] Weights were not calculated and task 4 was omitted from the following audits for the survey of residential buildings: Site I, wave 3; Site II, waves 2 and 3. Those surveys were administered to a small portion of the HASE sample, which cannot be made to represent the population of interest--all residential buildings in the county.

## Appendix A

## MODIFICATIONS TO PROTECT RESPONDENT CONFIDENTIALITY

This appendix documents how we altered the values of certain variables on all landlord, household, and residential building survey files to protect respondents from being identified by users of the files.[1] The unmodified survey files contained enough information to readily identify some properties (especially large rental properties) by combining descriptors: location, type of structure, number of dwellings, form of ownership, amount of property taxes, etc. Once a property was identified, it would be easy to identify the owner and occupants and gain access to information they gave in confidence.

To preserve the analytic richness of the data, we modified the minimum number of variables and values. Likewise, the degree of modification was kept to the minimum consistent with respondent protection.

The new values are on the files that were transmitted to DUALabs; the old values are reflected in the response distributions tabulated for each variable in the appropriate codebook. The number of records on each file may also differ from the corresponding codebook total, but that discrepancy is a result of changes due to sample accounting rather than measures to protect respondents.

Depending on the type of data, we made the following modifications:

- Averaging property data to a unit or building level.
- Recoding ranges of particularly sensitive details (such as the number of housing units on the property--e.g., for all 10- to 19-unit properties, citing "10" as the number of units; for all 20- to 29-unit properties, citing "20").

[1] The neighborhood survey files, which do not contain any information that could be linked with persons, required no modification.

- Aggregating detailed data to a more general level.
- Deleting identifier variables that did not lend themselves to any of the first three methods.
- Renumbering BLDG and UNIT identifiers for large properties.[2]

When it was necessary to delete values, we changed them to blanks (header variables only) or replaced them with a new audit code, -33. Only positive values were modified; original audit codes, -1 through -23, remain unchanged.

The landlord survey files required the most modification to disguise the financial information gathered. We averaged all financial data by dividing per-property figures by the total number of units on the property. As a result, the variable definitions and values changed in two ways. Variables originally defined as the amount per property (e.g., cost of electricity or real estate taxes) are now defined as the average amount per unit on the property. Variables originally defined as the number of items per property are changed to proportion of items on the property, expressed as a ratio (.00 - 1.00). For example, number of mobile homes becomes the proportion of the property occupied by mobile homes. In a few instances, values of the latter type validly exceed 1.00, as in the proportion of evicted households, which can exceed the total number of units on a property.

Table A.1 lists the variables modified on the landlord survey files. We do not list modified variables from the previous owner supplement because they are identical to listed variables. The survey codebooks (listed in Sec. V) provide the correspondence between listed variables and their POS counterparts.

Table A.2 lists all variables modified on the household survey files. Where fewer than all records were modified for a certain variable, the conditions that qualify a record for modification are indicated in parentheses after the variable name or in a footnote.

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[2] Any numbers that have been resequenced on one file have been similarly resequenced on the others, so that interfile correspondences have been preserved.

For example, taxing unit codes (TU) were deleted only for records representing nonhomeowner housing units (in the TH11 file, only if TYPUNT \= 1 or 2). Also, only the values indicated in the recoding specifications were changed; for example, if the table shows that values "0-5" were recoded, no values above 5 were modified.

Table A.3 lists all modifications to the eight residential building survey files.

In all tables, variable names cited without file identifiers remain the same on all files.

Table A.1

MODIFICATIONS TO LANDLORD SURVEY FILES

| Topic | Variable | How Modified |
|---|---|---|
| Geographic identifiers | CBLOCK, CED, CTRACT, NBHDCODE | Changed to blank |
| Equalization ratio/ taxing unit | EQFACTOR, X39 | Changed to -33 |
| Type of ownership | L9 | Recoded:<br>6-8 = 9 |
| Assessed value of land and improvements | X40, X41 | Recoded:<br>If X40 > 0 & X41 > 0:<br>X40 = X40/(X40+X41)<br>X41 = X41/(X40+X41)<br>Else if X40 > 0:<br>X40 = -33<br>Else if X41 > 0:<br>X41 = -33 |
| Number of rooms on property | X38, X74 | Divided by total number of residential units on property (unmodified X1) |
| Number of different types of residential units on property | X2-X6, X34-X36<br>LL11: C22:1-5, C27:1-2, C37, C46, H1A, H20<br>LL21: C2, C3, C9:1-5, C27, C30:1-6, C36:1-2, C98, C130, H4, H6, H7, H10, H13, H32<br>LL12: C44, C45, C47, C51:1-5, C71, C75:1-6, D44, H10, H12, H13, H16, H18, H30, X59-X60<br>LL22/LL13: C43, C47, C49-C50, C54:1-5, C73, C76:1-6, C81:1-2, D76, H7-H10, H24, K18A, K21, K28, P7-P9, X59-X60, Z65<br>LL23/LL14/LL24: C43, C47, C49-C50, C54:1-5, C73, C76:1-6, C81:1-2, D76, H7-H10, H24, K18A, K21, K28, P7A, X59-X60, Z65 | Divided by total number of residential units on property (unmodified X1) |

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Repair expenses | Y93-Y102, Y123-Y132, Y142-Y147<br>LL11: A13-A14, E4C:1-15, E8, I4, I12, I16<br>LL21: A15-A16, A19-A20, E11:1-15, E15, I14, I24, I28<br>LL12: A19, F8:1-15, F13, F14, J15, J25, J28<br>LL22/LL13/LL23/LL14/LL24: A19, F7:1-15, J5 | Divided by total number of residential units on property (unmodified X1) |
| Management expenses | Y41, Y58-Y70, Y103-Y110, Y135, Y137, Y140-Y141<br>LL11: D13B:1-6, D14A:1-6, D17:1-6, D20, D24:1-14, D25A:1-14, F51:B1-3, F53:1-3<br>LL21: D12, D19:1-5, D21:1-5, D24:1-5, D30, D32, D34, D36-D37, D41:1-5, D43:1-5, D45:6-10, D47:6-10, D49:11-13, D51:11-13, F73:1-3B, F75:1-3<br>LL12: E7, E9, E13, E19:A-C, E21, E26:1-5, E28:1-5, E30:6-10, E32:6-10, E34:11-14, E36:11-14, G85:B1-3<br>LL22/LL13/LL23/LL14/LL24: E3A, E4A, E13, E15, E18, E22A-C, E26:1-14, E28:1-14, G77B:1-3, G79:1-3, Y133-Y136 | Divided by total number of residential units on property (unmodified X1) |
| Taxes and insurance | T35, Y24, Y31, Y32, Y40<br>LL11: F37-F39, F43:1-3, F45:1-3<br>LL21: F51-F54:C, F58:1-3 (if \= 2) F61:1-3, F63, F65, F66<br>LL12: G58-G60, G61A:A-G64, G68:1-2, G70:1-2, G73, G75, G77, G78<br>LL22/LL13/LL23/LL14/LL24: G56-G58, G59A-B, G63:1-2, G65:1-2, G68, G70, G72, G73 | Divided by total number of residential units on property (unmodified X1) |

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Utilities | Y25, Y42, Y49-Y56, Y114-Y121<br>LL11: D29:A1-5, D29:B1-4, D29:C1-4, D33:A1-2, D33:B1, D33:C1<br>LL21: D55:1-5A, D55:1-3B, D55:1-3C, D59:1A, D59:2, D62:1-5A, D62:1-5B, D62:1-5C<br>LL12: E40:A1-5, E40:B1-3, E40:C1-3, E44:A1-2, E46:A1-5, E46:B1-5, E46:C1-5<br>LL22/LL13/LL23/LL14/LL24: E35A:1-7, E35C:1-5, E35D:1-5, E37A:1-3, E37B:1-3, E37C:1-3 | Divided by total number of residential units on property (unmodified X1) |
| Debt service | Y17, Y34, Y35<br>LL11: F3, F6, F11, F13:1-3, F17:1-3, F22:A1-3, F23:A1-3, F29:1-3, F34:A1-3, F36:1-3<br>LL21: F4, F8, F12, F15:1-3, F18:1-3, F23:1-3, F31:1-3A, F31:1-3B, F32:1-3A, F38:1-3, F44:1-2A, F44:1-2B, F46:1-2<br>LL12: G12, G16, G20, G24:1-3, G26:1-3, G29:1-3, G39:A1-3, G39:B1-3, G40:A1-3, G46:1-3, G51:A1-2, G51:B1-2, G53:1-2, G55:1-2<br>LL22/LL13/LL23/LL14/LL24: G9A (G8A), G13A, G17, G20A, G21A, G24:1-3, G26:1-3, G29:1-3, G39A:1-3, G39B:1-3, G40A:1-3, G46:1-3, G48A, G51A:1-2, G51B:1-2, G53:1-2, G55:1-2 | Divided by total number of residential units on property (unmodified X1) |

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Property value | X43, X45, X63<br>LL11: A8-A10, I29<br>LL21: A9-A12, I41<br>LL12: A10-A13, J39<br>LL22/LL13/LL23/LL14/LL24: A12-A15, J16, J19 | Divided by total number of residential units on property (unmodified X1) |
| Value of unpaid labor | LL11: D2, D5, D9, E5:1-15<br>LL21: D2, D5, D8, E12:1-15<br>LL12: F9:1-15<br>LL22/LL13/LL23/LL14/LL24: F8A:1-15, F22, F28, F34, Y111-Y113 | Divided by total number of residential units on property (unmodified X1) |
| Hours of unpaid labor | LL11: D1, D4, D7 (if \= 111)<br>LL21: D1, D4, D7, D10<br>LL12: F16, F19, F22, F25 (if \= 169)<br>LL22/LL13/LL23/LL14/LL24: F17-F18A, F23-F24A, F29-F30A, Z56-Z58 | Divided by total number of residential units on property (unmodified X1) |
| Number of households that moved out or were evicted | Z63, Z67<br>LL11: H15, H17<br>LL21: H27, H29<br>LL12: H2, H5<br>LL22/LL13/LL23/LL14/LL24: H3, H5 | Divided by total number of residential units on property (unmodified X1) |
| Income (residential) | T25, Y11-Y12, Y15, Y21-Y22, Y79, Y138<br>LL11: C11-C13, C17-C18, C39-C41, C45, C48-C50, C54-C56, C58<br>LL21: C56, C58-C59, C61, C66, C68, C70, C77-C78, C85, C87, C89, C94, C102-C104, C107, C110, C127-C129, C135, C137, Y14<br>LL12: D5, D7, D8, D10, D14, D16, D18, D25-D26, D32, D34, D36, D40, D49-D51, D54-D57, D72-D74<br>LL22/LL13/LL23/LL14/LL24: D10, D12-D13, D15, D19, D21, D23, D30-D31, D37, D39, D41, D45, D47, D53-D55, D58-D61, D70, D73-D75, D81, Y14 | Divided by total number of residential units on property (unmodified X1) |

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Number of commercial units in buildings | LL21: C8:1-5<br>LL12: C52:1-5<br>LL22/LL13/LL23/LL14/LL24: C55:1-5 | Divided by total number of commercial units on property (unmodified X28) |
| Income (commercial) | Y13, Y23<br>LL11: C32-C34<br>LL21: C73-C74, C119-C120, P17:1<br>LL12: D21-D22, D66-D67<br>LL22/LL13/LL23/LL14/LL24: D26-D28, D67-D69 | Divided by total number of commercial units on property (unmodified X28) |
| Number of buildings added or removed | LL12/LL22/LL13/LL23/LL14/LL24: X61-X62 | Divided by total number of residential buildings on property (unmodified X8) |
| Total number of residential units | T1, X1<br>LL11: B12, B19<br>LL21: B20, B27<br>LL12: B16, B23<br>LL22/LL13/LL23/LL14/LL24: B7, B12 | Recoded:<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>40-49 = 40<br>50-99 = 50<br>100+ = 100 |
| Total number of residential buildings/units on property | T2, X8<br>LL11: C5<br>LL21: C5, C26, C45, H2<br>LL12: C70, C72, H8<br>LL22/LL13/LL23/LL14/LL24: C52, C70, C71 | Recoded:<br>10-19 = 10<br>20-99 = 20<br>100+ = 100 |
| Number of commercial units on property | X28<br>LL11: C31<br>LL21: C19, C24-C25<br>LL12: C57, C62, C69<br>LL22/LL13/LL23/LL14/LL24: C60, C63, C66 | Recoded:<br>2+ = 2 |
| Number of properties | L36<br>LL11: B11<br>LL21: B19, C22, C124<br>LL12: B15, L5, T41<br>LL22/LL14/LL24: B6, L5, T41<br>LL13/LL23: B6 | Recoded:<br>10+ = 10 |

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Number of employees | LL11: V5<br>LL21: V29<br>LL12: V39, D71<br>LL22/LL13/LL23/LL14/LL24: V33 | Recoded:<br>20+ = 20 |
| Year building built | LL11: C6<br>LL21: C10:1-5<br>LL12: C53:1-5*<br>LL22/LL13/LL23/LL14/LL24: C56:1-5 | Recoded:<br>1700-1849 = 1800<br>1850-1869 = 1850<br>1870-1879 = 1870<br>1880-1889 = 1880<br>.<br>.<br>1960-1969 = 1960<br>1970+ = 1970 |
| Age of building | LL21/LL12/LL22/LL13/ LL23/LL14/LL24: T49 | Recoded:<br>0-9 = 5<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>.<br>.<br>90-99 = 90<br>100+ = 100 |
| Type of ownership | LL21: V22<br>LL12: V31<br>LL22/LL13/LL23/LL14/LL24: V26 | Recoded:<br>5-9 = 88 |
| Number of new buildings and units | LL12/LL22/LL13/LL23/LL14: C27-C29 | Recoded:<br>If C27 = 1:<br>C27 = 2 and<br>C28 = -11 and<br>C29 = -11 |
| Activities of firm that owns property | LL11: B16:N | Recoded:<br>14-34 = 88 |
| Month of property transfer | LL11: A2<br>LL21: V8:M, A2:M, A4<br>LL12: V10:M, A2:M, A5:M<br>LL22/LL13/LL23/LL14/LL24: V10:MO, V13:MO, A5:MO, A6:MO | Recoded:<br>1-3 = 1<br>4-6 = 2<br>7-9 = 3<br>10-12 = 4 |

*These variables do not contain the left-most digit of the year (e.g., 1975 appears as 975).

Table A.1 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Date of property transfer | LL21: V8:D<br>LL12: V10:D, C2:M<br>LL22/LL13/LL23/LL24: V10:DA, V13:DA<br>LL14: V10:DA, V13:DA, C4 | Changed to -33 |
| Housing assistance program | LL21: C126<br>LL22/LL23/LL24: D72 | Changed to -33 |

Table A.2

MODIFICATIONS TO HOUSEHOLD SURVEY FILES

| Topic | Variable | How Modified |
|---|---|---|
| Geographic identifiers | CBLOCK, CED, CTRACT, NBHDCODE | Changed to blank |
| Number of different types of buildings on property | NRESBLDG, NMXBLDS, NNRBLDS | Divided by total number of buildings on property (unmodified TOTNBLDG) |
| Total number of buildings on property | TOTNBLDG | Recoded:<br>10-19 = 10<br>20-99 = 20<br>100+ = 100 |
| Number of different types of residential units on property | NTUNTS, NMHUNTS, NEUNTS, NRUNTS, NLUNTS | Divided by total number of residential units on property (unmodified RESUNIT) |
| Total number of residential units on property | RESUNIT | Recoded:<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>40-49 = 40<br>50-99 = 50<br>100+ = 100 |
| Total number of commercial units property | DRNCOM | Recoded:<br>2+ = 2 |
| Total number of residential units in building | NBRSUNT | Recoded:<br>5-9 = 5<br>10-19 = 10<br>20-49 = 20<br>50+ = 50 |
| Identifier for sampled building on property | BLDG | Identifiers for all sampled buildings on each property renumbered in sequence |
| Identifier for sampled unit on property | UNIT | Identifiers for all sampled units on each property renumbered in sequence |

Table A.2 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Property acreage | TH11: C125T, C126T, C138M, C139M<br>TH21: CT64-CT65, CH90-CH91, CM137-CM138<br>TH12: CT75-CT76, CH117-CH118, CM146-CM147, CL84-CL85<br>TH22/TH13: CT72-CT73, CH123-CH124, CM151-CM152, CL84-CL85<br>TH23/TH14/TH24: CH5, CH15, CM4 | Recoded:<br>11-49 = 11<br>50-99 = 50<br>100+ = 100 |
| Homeowner taxes | ESTRTAX, HY24<br>TH11: C80T<br>TH21: CH54:A-B<br>TH12: CH69:A-B<br>TH22/TH13: CH77:A-B<br>TH23/TH14/TH24: CH78:A-B | Recoded:<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>(by 10's until highest value recoded) |
| Day family member born | TH11: G2A:D, G6A:D1-8<br>TH21: G10A:D3-14<br>TH12: G11A:D3-14<br>TH22/TH13: G12:D1-2 | Changed to -33 |
| Month (unit bought or sold; family member born; moved in) | W5<br>TH11: C30MT, C31:MT, C34:M1-3M, MOVEMO, MOVEINMM, MONTHTH, DATEMHM, RETURNM, RETURNMM, G2A:M, G6A:M1-8<br>TH21: CH3A:M, CH4:M, CM34:1-3M, D5A:M, D7:M, G10A:M3-14<br>TH12: CH4:M, CH5:M, CM34:M1-3, DL7:M, DL9:M, G11A:M3-14<br>TH22/TH13: A34:M, A36:M, A46:M, A48:M, A58:M, A59:M, CH17:M, CH18:M, CM34:M1-3, D33A:M, D35:M, G12:M1-2, VL17M<br>TH23/TH14/TH24: A30:M, A36:M, CH19:MO, CH20:MO, CM35M:1-3, D35A:M, D37:M | Recoded:<br>1-3 = 1<br>4-6 = 2<br>7-9 = 3<br>10-12 = 4 |

Table A.2 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Year building built | TH22/TH13: CH106<br>TH23/TH14/TH24: CH74 | Recoded:<br>1700-1849 = 1800<br>1850-1869 = 1850<br>1870-1879 = 1870<br>1880-1889 = 1880<br>.<br>.<br>1960-1969 = 1960<br>1970+ = 1970 |
| Neighborhood of previous residence | TH11: FSTNC (if D48A = 3 or D49 = 1)<br>TH21: D35:B1 (if D58 = 3 or D59 = 1)<br>TH12: DL45B1 (if DL70 = 3 or DL71 = 1)<br>TH22/TH13: D68B:1 (if D101 = 3 or D102 = 1)<br>TH23/TH14/TH24: D71B:1 (if D104 = 3 or D105 = 1) | Changed to -33 if previous and current neighborhoods the same |
| Improvements assessed value | SIMPR | For homeowners, recoded:*<br>100-199 = 100<br>200-299 = 200<br>300-399 = 300<br>.<br>.<br>900-999 = 900<br>1000-1999 = 1000<br>2000-2999 = 2000<br>3000-3999 = 3000<br>.<br>.<br>9000-9999 = 9000<br>10000-19999 = 10000<br>20000+ = 20000<br>.<br>For nonhomeowners, changed to -33 |

*Homeowners are identified as follows: TH11 (if TYPUNT = 1 or 2); TH21 (if U3:22 = 3 and TYPUNT \= 2); TH12 (if U3:2B = 2); TH22/TH13 (if U3:2 = 3 and CH74 \= 1); TH23/TH14/TH24 (if U4:2 = 3 and CH75 \= 1). Nonhomeowners are all others.

Table A.2 (cont.)

| Topic | Variable | How Modified |
|---|---|---|
| Land assessed value | SLAND | For homeowners, recoded:*<br>100-199 = 100<br>200-299 = 200<br>300-399 = 300<br>.<br>.<br>900-999 = 900<br>1000-2499 = 1000<br>2500-4999 = 2500<br>5000-9999 = 5000<br>10000-19999 = 10000<br>20000+ = 20000<br><br>For nonhomeowners, changed to -33 |
| Net tax due | NETTAX | For homeowners, recoded:*<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>(by 10's until highest value recoded)<br><br>For nonhomeowners, changed to -33 |
| Taxing unit | TU | Changed to -33 for nonhomeowners* |
| Aggregated neighborhood | TH21/TH22/TH23/TH24: AGGNBH | Changed to -33 for nonhomeowners* |

*Homeowners are identified as follows: TH11 (if TYPUNT = 1 or 2); TH21 (if U3:22 = 3 and TYPUNT \= 2); TH12 (if U3:2B = 2); TH22/TH13 (if U3:2 = 3 and CH74 \= 1); TH23/TH14/TH24 (if U4:2 = 3 and CH75 \= 1). Nonhomeowners are all others.

Table A.3

MODIFICATIONS TO RESIDENTIAL BUILDING SURVEY FILES

| Topic | Variable | How Modified |
|---|---|---|
| Geographic identifiers | CBLOCK, CED, CTRACT, NBHDCODE | Changed to blank |
| City | RB11: CITY | Changed to -33 |
| Number of housing units in building | RB11: R16:1, 17 | Recoded:<br>10-19 = 10<br>20-29 = 20<br>30-39 = 30<br>40-49 = 40<br>50+ = 50 |
| Identifier for sampled building on property | BLDG | Identifiers for all sampled buildings on each property renumbered in sequence |

# Appendix B

## TOPICAL INDEX OF VARIABLES

The five HASE surveys asked thousands of questions about diverse subjects. Besides the primary survey variables yielded by the survey questions, the data base contains hundreds of analytic variables derived from them. Topically related variables are not necessarily clustered in the same file or in corresponding locations of different files. By arranging the variables from all surveys in main research topics and related subtopics, this index enables analysts to determine quickly whether the HASE data base contains the information they are seeking and where it is found.

### COMPOSITION

The index is divided into 18 main research topics--subjects under which an analyst might first look for information. Main topics are followed by a list of subtopics arranged alphabetically. To the right of each subtopic is a list of all pertinent HASE variables. The variable names are those on the Site II, wave 2 (II:2) files.[1] The II:2 surveys marked the midpoint of the experiment, and their instruments have most in common with the instruments of previous and later waves. The variables for each topic are grouped within parentheses by the type of codebook in which they are documented, indicated by the following abbreviations:

| | Codebook Type | | |
|---|---|---|---|
| Survey | Main Survey | Supplemental | Attitude Module |
| Landlord | L | LX | LA |
| Household | T | TX | TA |
| Residential building | R | RX | -- |
| Neighborhood[2] | N | NX | -- |

[1] For the neighborhood surveys, which were administered only at waves 1 and 4, the NS11 and NO11 variable names are given. Appendix C, "Cross-Wave Indexes of Survey Variables," identifies the variables on other files that correspond to the representative II:2 (NS11, NO11) variables listed here.

[2] The variables from both neighborhood surveys--local sources and street observation--are documented in the same codebooks.

For example, the six variables associated with the building's age are found in three codebooks, the landlord and household main-survey codebooks and the landlord supplemental codebook. The index entry reads:

BUILDING CHARACTERISTICS

| | |
|---|---|
| Age | (L: A5, C56) (LX: T49)<br>(T: CH17, CH18, CH106) |

To save space, we abbreviate variable names where appropriate. For example, landlord survey variable A7 has nine parts--A7A through A7I. Since all parts pertain to the reason the landlord acquired the property, we simply list A7 for that topic, not the nine parts separately. Of course, if all variable parts do not pertain to the same topic, the specific names are listed.

Some specific comments and cautions are in order:

- The first topic, ADMINISTRATIVE VARIABLES, consists of variables that do not fit under substantive topics but define analytic samples, track sample elements, account for survey outcomes, or pertain to supplementary forms.
- The validation variables on the residential building survey file are also listed under appropriate substantive topics. Validations for that survey yielded useful data because they were essentially reobservations, not primarily administrative checks.
- Variables from the landlord survey's previous owner supplement and neighborhood street observation survey's validations also contain useful data but are not listed because they are identical to listed variables, preceded by P or V. Therefore, the user should be aware that every landlord survey variable listed here that begins with D, E, F, and G has a counterpart on the file beginning with PD, PE, PF, and PG. Likewise, every neighborhood survey variable beginning with SO has a corresponding VSO variable on the file.

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 at the exteme left. Main topics appear in alphabetical order:

| | |
|---|---|
| ADMINISTRATIVE VARIABLES | NEIGHBORHOOD CHARACTERISTICS |
| ALLOWANCE PROGRAM | PERSONAL CHARACTERISTICS |
| BUILDING CHARACTERISTICS | PROPERTY CHARACTERISTICS |
| DEBT SERVICE | RENT |
| EXPENSES | REPAIRS AND CAPITAL IMPROVEMENTS |
| HOUSING SUBSIDIES | RESIDENCY HISTORY |
| INCOME AND ASSETS | TAXES |
| INSURANCE | UNIT CHARACTERISTICS |
| MANAGEMENT OF RENTAL PROPERTY | UTILITIES |

   Many topics are interrelated, so look under other possible entries if the first one consulted does not yield the desired information. We have cross-referenced liberally but have tried to preserve the specificity of the topics to avoid unwieldy lists. For example, although properties contain buildings and units, the subtopics under PROPERTY CHARACTERISTICS are limited to property-level features, and the features of the other two levels are cited under BUILDING CHARACTERISTICS and UNIT CHARACTERISTICS, respectively.

2. Verify precise variable definitions by consulting the appropriate codebook. The topics may only give a general idea of content.

3. To determine whether longitudinal data are available, or to find the same information for a year other than the representative year, consult Appendix C for the variables of interest.

## ADMINISTRATIVE VARIABLES

| | |
|---|---|
| **Accounting variables:** | |
| Dummy record indicator | (LX: DUMREC) (TX: DUMREC) (RX: DUMREC) |
| Filler for correct record alignment | (LX: FILL001) (TX: FILL001) (RX: FILL001) |
| Final status code | (L: U1FS) (LX: FSDISC, FSCCAT, POSCAT, T5) (T: U1FS) (TX: FSDISC, THSTAT, FSCCAT) (R: UFSC) (RX: SRBSTA, FSDISC, FSCCAT) (N: NSTAT) |
| Panel status of property or unit | (LX: PANELS) (TX: UCOMP, USTAT) (RX: RPAN, CPAN, PERMPN, BSTAT) |
| Record documented in codebook | (LX: CODEBK) (TX: CODEBK) (RX: CODEBK) |
| Updated identifier | (LX: IDUPDT) (TX: IDUPDT) (RX: IDUPDT) |
| **Address verification** | (L: V2-V5, V18-V20) (R: B1, VLB1) |
| **Contact attempts:** | |
| Completion date | (L: UCD:MO-DY) (T: UCDM-Y) (R: U1DATE, U2DATE) (N: NCOMM-Y) |
| Date and time of contact | (L: UMO-UDAY, UBHR-UBAP) (T: U:A-C) (R: UA-B) |
| Forms and modules administered | (L: U2A-G) (T: U2:1-8, U3:1-5) (R: UCONT:1-5) |
| Number of attempts | (L: UAN) (T: UAT) (R: UA1) |
| Result | (L: UD-E) (T: U:E-G) (R: UE-F) |
| Type--personal or telephone | (L: UBTP) (T: U:DPT) (R: UC-D) |
| **Data indicators:** | |
| Months data cover | (L: D7) (LX: INDPY, MCOVREP, MNTHSCOV, Z68) (T: CH75Z) (TX: INDPY, MNTHSCOV, MCOVREP) |
| Source of data | (LX: T46, INDREG, INDPOS, INDPOSRI) (TX: INDWAVE) |
| **Identifiers:** | |
| Attitude module respondent | (LA: ATTID) |
| Building | (TX: BLDG) (RX: BLDG) |
| Designated respondent to landlord survey | (LX: DRID) (TX: DRID) (RX: DRID) |
| File name | (LX: FILENAME) (TX: FILENAME) (RX: FILENAME) (NX: FILENAME) |
| Interviewer/observer | (L: UID1-3) (T: UID1-3) (R: UID:1-2) (N: NDBVR, NRCDR) |
| Neighborhood | (LX: NBHDCODE) (TX: NBHDCODE) (RX: NBHDCODE) (NX: NBHDCODE) |
| Owner of record | (LX: ORID) (LA: IORID1-10) (TX: ORID) (RX: ORID) |
| Parent record | (LX: PARATP) (RX: PATP, PBLDG, PID) |
| Property | (LX: ATP) (TX: ATP) (RX: ATP) |

ADMINISTRATIVE VARIABLES (cont.)

| | | |
|---|---|---|
| Identifiers (cont.) | | |
| Respondent | (LA: | BKID) (TX: HH1ID, HH2ID, INFSUMM, INFSUMF) |
| Site and wave | (LX: | SITEWAVE) (TX: SITEWAVE) |
| | (RX: | SITEWAVE) (NX: SITEWAVE) |
| Unit | (TX: | UNIT) |
| Interview/observation information: | | |
| Additional building on same property observed | (R: | B89) |
| Feasibility of off-property observation | (R: | U1-U5) |
| Module administered for another property or building | (L: | LSTAT:D, LSTAT:B, LSTAT:I, B1, I1, K1) (R: ASTAT:PS) |
| Module completion status | (L: | ASTAT, BSTAT, CSTAT, DSTAT, ESTAT, FSTAT, GSTAT, HSTAT, ISTAT, JSTAT, KSTAT) |
| | (T: | A75, BTSTAT, BHSTAT, BMSTAT, BLSTAT, CTSTAT, CHSTAT, CMSTAT, DSTAT, ESTAT, FSTAT, GSTAT, HSTAT) |
| | (R: | ASTAT:A, BSTAT:B) (RX: MODB) |
| Module respondent status | (T: | A75, BT103-BT105A, BH103-BH105A, BM103-BM105A, BL103-BL105:A, CT75, CH126, CM154, CL87, D139, G33, H99-H101A) |
| Observer contact with building resident | (R: | B79-B81, VLB21-VLB23) |
| Observation conducted on/off property | (R: | B88, VLB29) |
| Time began and ended | (L: | V1, V17, V63, A3, A20, B3, B39, C2, C94, D2, D84, E2, E42, F2, F37, G2, G83, H2, H31, I3, I13, J2, J29, K3, K51, P3) |
| | (T: | A15, A74, BT1, BT106, BH1, BH106, BM1, BM106, BLHRBG-BLAMPM, BLHREN-BLAPEN, CT1, CT74, CH1, CH125, CM1, CM153, CLHRBG-CLAPBG, CLHREN-CLAPEN, D3, D27, D138, E2, E37, F2, F37, G1, G32, H1, H98) |
| | (R: | AHRBG-AAPBG, AHREN-AAPEN, BHRBG-BAPBG, BHREN-BAPEN) |
| Respondent information: | | |
| Name verified | (T: | A1-A13:B, A29, A41, A53) |
| New respondent/prior wave respondent | (L: | A1, B18, B31, B35, G3) |
| | (T: | A13:A-A14, A28:D, A65:A, A68, BT2, BH2, BM2, BL2, CH2, D1-D2B, E1, F1) |

ADMINISTRATIVE VARIABLES (cont.)

| | |
|---|---|
| Sample-selection indicators: | |
| Attitude-complete | (LA: K51X, INDECENT, INDIORBJ, INDDRBJ, INDLORD) |
| Debt service-complete | (LX: INDDBTC) (TX: INDDBTC) |
| Field-complete | (LX: INDFC) (TX: INDFC) (RX: RECSTA) |
| Income and expense-complete | (LX: INDREFC) (TX: INDEXPC, INDYEXPC, YCMPLT) |
| Insurance-complete | (TX: INDINSC) |
| Property value-complete | (TX: INDVALC) |
| Real estate tax-complete | (TX: INDTAXC) |
| Repairs and additions-complete | (TX: INDREPC, INDHRSC) |
| Utility-complete | (LX: T47, T48) (TX: INDUTILC) |
| Sampling strata: | |
| Panel selection stratum | (LX: PSS) (TX: PSS) |
| Panel stratum | (LX: STRATUM) (TX: STRATUM) (RX: FINSTR) |
| Revised panel stratum | (LX: REVPS) (TX: REVPS) |
| Supplementary data: | |
| Previous owner supplement | (L: P1-PG84) |
| Refusal or breakoff form | (L: ROU-R22, RN1-RN2) (T: ROU1-R47, N1-N3) (R: VLB31-VLB32, RREF1-R20) |
| Vacancy report | (T: V1-V16) |
| Validation form | (L: VLSM-VL12) (T: VLIIDA-VL26) (R: VLIID-VLBAPEN) (N: VNBHDCOD-VNCOMY) (NX: VALIDATE, VALIDATB, INCONFLG) |
| Weights: | |
| Attitude-complete | (LA: WPATT, WLATT) |
| Field-complete | (LX: FSCWT) (TX: FSCWT) |
| Household-complete | (TX: HCPWT) |
| Income-complete | (TX: YCPWT) |

ALLOWANCE PROGRAM

| | |
|---|---|
| Accepted/not accepted in program | (LA: K19, K22) (TA: H45, H55-H56) |
| Moved to acceptable unit | (TA: H41E, H42) |
| Number of unacceptable units on property | (LA: K21) |
| Opinion about fairness of decision | (LA: K26) (TA: H41A, H46, H57) |
| Previous unit unacceptable | (TA: H41-H41E) |
| Repaired unit acceptable | (LA: K23-K25) (TA: H47-H49, H50-H53A) |
| Applied to program | (LA: K16, K33) (TA: H17-H18A, H19, H21) |
| Why did not apply | (TA: H18B, H19A, H20) |
| Would reapply | (TA: H67) |

ALLOWANCE PROGRAM (cont.)

| | |
|---|---|
| Attitudes toward: | |
| Checking on income | (TA: H16, H30) |
| Housing assistance from the government | (LA: K45) (TA: H93) |
| HAO's efficiency | (LA: K37-K38) (TA: H78-H79A, H86, H87) |
| National program | (LA: K39) (TA: H89) |
| Tenants who receive payments | (LA: K29-K29A) |
| Changes desired | (LA: K35-K36) (TA: H81-H82) |
| Effects on: | |
| County | (TA: H13-H14A) |
| Household | (TA: H9-H10A) |
| Landlord's property management | (LA: K10-K11A) |
| Neighborhood/area | (LA: K12-K14A) (TA: H11-H12A) |
| Other benefits received | (TA: H75-H75A) |
| Eligibility | (TA: H20, H24, H27, H31) |
| Feelings about being ineligible | (TA: H26, H32) |
| Plans to repair unit or move to be eligible | (TA: H58, H59) |
| Why not eligible | (TA: H20A-B, H25-H25A, H31A-B) |
| Enrollment: | |
| Interviewed | (TA: H22, H28) |
| Participation agreement signed | (TA: H33, H34) |
| Why decided not to participate | (TA: H23, H24, H34A) |
| Why not interviewed | (TA: H22A-B) |
| Why no longer enrolled | (TA: H62, H63) |
| Evaluation of unit | (LA: K18) (TA: H42-H43) |
| Opinion of fairness of evaluation | (LA: K26) (TA: H41A, H46, H57) |
| Number of evaluated units on property | (LA: K18A, K20) (LX: Z65) |
| Number of evaluations | (TA: H44, H54A) |
| Previous unit evaluated | (TA: H37, H39-H40) |
| Reevaluated | (TA: H54) |
| Knowledge of program | (LA: K4-K8) (TA: H2-H7) |
| Attended information sessions | (TA: H35-H35B) |
| Knows enrollees | (LA: K31-K32) (TA: H83-H84) |
| Understanding of eligibility requirements | (TA: H36-H38) |
| Lease, objects to signing | (LA: K30) |
| Opinion of how program is funded | (TA: H88) |
| Opinion of program | (LA: K9-K9A) (TA: H8-H8A) |

ALLOWANCE PROGRAM (cont.)

| | |
|---|---|
| Problems: | |
| Changes to payments | (TA: H69, H69A) |
| Finding adequate housing | (T: D48:A, D48:C) |
| Getting repairs done by landlord or manager | (TA: H53-H53A) |
| Meeting rent/mortgage payments while enrolled | (TA: H70) |
| Receiving payments | (TA: H60) |
| Amount | (TA: H73, H76, H77) |
| Changes to amount | (TA: H68-H69A, H74) |
| Currently | (LA: K17, K27) (LX: Z64) (TA: H61, H72) |
| Date payments began/ended | (TA: H71, H72A) |
| Ever | (TA: H60A) |
| Number of units on property whose tenants receive payments | (LA: K28) |
| Why not receiving payments | (LA: K17A) (TA: H60B, H61A) |
| Satisfaction with program | (LA: K34) (TA: H80) |
| Termination from program: | |
| Amount of last payment | (TA: H73) |
| Client/HAO decision | (TA: H64-H66) |
| Date payments stopped | (TA: H72A) |
| Reason no longer enrolled | (TA: H62-H63) |
| Who benefited from program besides recipient | (LA: K15-K15A) (TA: H15-H15A) |

BUILDING CHARACTERISTICS

| | |
|---|---|
| Age | (L: A5, C56) (LX: T49) (T: CH17, CH18, CH106) |
| Changes to building: | |
| Fewer units | (L: C14, C16, C36-C38) (LX: X60) |
| More units | (L: C24, C26, C29-C31) (LX: X59) |
| Subdivided units indicator | (LX: DS42) |
| Condemned or fire-damaged | (R: B2, VLB2) |
| Condition | (T: BT44-BT44A, BH44-BH44A, BM44-BM44A, BL44-BL44A) |
| Constructed by owner/moved to property | (L: A4) (T: CH16) |
| Cost to improve building | (L: J5) |
| Distance from street | (R: B12, U2) |

BUILDING CHARACTERISTICS (cont.)

| | |
|---|---|
| Elevation from street | (R: B13) |
| Exterior condition | (R: B40, VLB14) (RX: EA10) |
| Balconies | (R: B38, B39) (RX: RBALCNY, PBALCNY, BALCNY) |
| Chimneys, flues, and vents | (R: B33) (RX: RCHIMNY, PCHIMNY, CHIMNY) |
| Doors: | |
| Permanent | (R: B25) (RX: RPERMDR, PPERMDR, PERMDR) |
| Screened | (R: B27) (RX: RSCRNDR, PSCRNDR, SCRNDR) |
| Storm | (R: B26) (RX: RSTRMDR, PSTRMDR, STRMDR) |
| Fire escapes | (R: B20-B21) |
| Foundation | (R: B19) |
| Gutters and down spouts | (R: B32) (RX: RGUTTRS, PGUTTRS, GUTTRS) |
| Locks | (R: B77-B78) |
| Patios | (R: B41) |
| Porches | (R: B34-B37) (RX: RPORCH, PPORCH, PORCH, RCLNPOR, PCLNPOR, CLNPOR, EA11) |
| Roof | (R: B28-B31, VLB13) (RX: RROOF, PROOF, ROOF, EA5, RFMAT, RFTYPE, VRFTYPE) |
| Stairways | (R: B58) (RX: REXSTRWY, PEXSTRWY, EXSTRWY) |
| Walls | (R: B16-B18, VLB10-VLB12) (RX: REXTWAL, PEXTWAL, EXTWAL, RVEXTWAL, PVEXTWAL, VEXTWAL, EA6, EXTWLMAT, VXWLMAT, ES6, ES9, WOODCOMP) |
| Windows: | |
| Permanent | (R: B22) (RX: REXTWNDW, PEXTWNDW, EXTWNDW, EA7) |
| Screened | (R: B24) (RX: RSCRNWDW, PSCRNWDW, SCRNWDW) |
| Storm | (R: B23) (RX: RSTRMWDW, PSTRMWDW, STRMWDW, EA8) |
| Heating system | (L: E29-E31) |
| Identifier | (TX: BLDG) (RX: BLDG) |
| Interior public areas, characteristics and condition | (R: B70, B74, VLB17, VLB20) |
| Accessibility | (R: B71, VLB18) |
| Banisters | (R: B72:8) (RX: RBANSTR, PBANSTR, BANSTR) |
| Ceilings | (R: B72:5) (RX: RCEILNG, PCEILNG, CEILNG) |
| Cleanliness | (R: B73) |

BUILDING CHARACTERISTICS (cont.)

| | |
|---|---|
| Interior public areas (cont.) | |
| Doors | (R: B72:3) (RX: RINTDOR, PINTDOR, INTDOR) |
| Elevator | (R: B72:9) (RX: RELEVTR, PELEVTR, ELEVTR) |
| Fire alarms and extinguishers | (R: B75-B76) |
| Floors | (R: B72:2, VLB19:2) (RX: RFLOOR, PFLOOR, FLOOR, RVFLOOR, PVFLOOR, VFLOOR) |
| Lighting fixtures | (R: B72:6) (RX: RLTNG, PLTNG, LTNG) |
| Mailboxes | (R: B72:10) (RX: RMAILBX, PMAILBX, MAILBX) |
| Stairways | (R: B72:7) (RX: RINSTRWY, PINSTRWY, INSTRWY) |
| Walls | (R: B72:1, VLB19:1) (RX: RINTWAL, PINTWAL, INTWAL, RVINTWAL, PVINTWAL, VINTWAL) |
| Windows and skylights | (R: B72:4) (RX: RINTWNDW, PINTWNDW, INTWNDW) |
| Number of units in building | (L: D8) (R: B7, VLB6) |
| Commercial | (R: B10-B11) |
| Residential | (TX: NBRSUNT) |
| Observable sides of building | (R: B14, U3, VLB8) |
| Signs of rats, termites, pests | (T: BT43, BH43, BM43, BL43) |
| Stories, number of | (R: B15, VLB9) |
| Type | (R: B6, VLB5) |
| Residential, commercial | (TX: BLDGTYPE) (R: B8, B9, VLB7, VLB16) (RX: BTYPE) |
| Single-unit, multiunit | (T: BT46, BT87, BH46, BM87, BM90A, BL46, BL87, CT39, CL46) |
| | (R: B69) |
| Under construction | (R: B3) |
| Vacancy status (e.g., some units rented, all units occupied) | (R: A9, B4, B5, VLB3, VLB4) |

DEBT SERVICE

| | |
|---|---|
| Amortization during year | (LX: Y35) (TX: HY35) |
| Balloon payment | (L: G45-G46) (T: CH60-CH61, CM80-CM81) |
| Behind in payments | (T: CH62-CH63, CM82-CM83) |
| Completeness indicator | (LX: INDDBTC) (TX: INDDBTC) |

DEBT SERVICE (cont.)

| | |
|---|---|
| Debt financing type | (TX: W2) |
| Debt status (property owned, mortgaged, on land contract) | (L: G3A, G10, G11) (LX: Z53) (T: CH6, CH27, CM42, CM54) (TX: INDMTGE, INDLCONT, INDCPUR) |
| Equity | (TX: HX53, HY28A) |
| In effect for whole/part year | (L: G7) |
| Interest paid during year | (LX: Y34) (TX: HY34) |
| Land contracts: | |
| Amount owed | (L: G9, G21) |
| Changes | (L: G8) |
| Date of first payment | (L: G14) (T: CH31, CM45) |
| Down payment/full price | (L: G13) (T: CH29, CM43) (TX: W8) |
| Interest rate | (L: G16) (T: CH32, CM46) |
| Monthly payment | (L: G17-G19) (T: CH34-CH36, CM48-CM50) |
| Other property covered | (L: G20) (T: CH37, CM51) |
| Purpose (to buy, improve property) | (TX: W3) |
| Term | (L: G15) (T: CH33, CM47) |
| Total amount | (L: G13A, G20A) (T: CH30, CH37A, CM44, CM52) (TX: W7) |
| Lender | (L: G43-G44) (T: CH58-CH59, CM78-CM79) |
| Loans with property as security | (L: G4, G5, G12) (T: CH7, CH10, CH28, CM55) |
| Mortgages and loans: | |
| Amount owed | (L: G9, G40) (T: CH55, CM75) (TX: CURDEBT) |
| Changes | (L: G8) (T: CH9) |
| Amount increase | (L: G27-G29) (T: CH45-CH47, CM65-CM67) (TX: W10) |
| Interest rate change | (L: G36-G37) (T: CH52, CM72) |
| Term extension | (L: G32-G34) (T: CH48-CH50, CM68-CM70) |
| Date of first payment | (L: G30) (T: CH43, CM63) |
| Down payment | (TX: W8) |
| FHA insured/VA guaranteed | (L: G41) (T: CH56, CM76) |
| Interest rate: | |
| Present | (L: G35) (T: CH51, CM71) (TX: W11) |
| Original | (L: G38) (T: CH53, CM73) |
| Monthly payment | (L: G39, G48) (T: CH54, CM74) |
| Mortgage/loan indicators | (L: G23) (T: CH39, CM58) (TX: W2) |
| Number | (L: G6, G22, G47) (T: CH8, CH38, CM57) |

DEBT SERVICE (cont.)

| | |
|---|---|
| Mortgages and loans (cont.) | |
| Original principal | (L: G24-G26) (T: CH40-CH42, CM59-CM62) (TX: W7) |
| Purpose (to buy, improve property) | (L: G42) (T: CH57, CM77) (TX: W3) |
| Term | (L: G31) (LX: Z44, Z45) (T: CH44, CM64) (TX: W12) |
| Principal of debts acquired during year | (LX: Y17) (TX: HY17) |
| Ratio of debt to acquisition cost | (TX: W9) |
| Ratio of nonfarm debt to total property debt | (LX: MORTADJ) (TX: MORTADJ) |
| Reliability of landlord information | (L: G81, G82A-D) |
| Terminated debts: | |
| Balloon payment | (L: G52-G53) (T: CH70-CH71, CM91-CM92) |
| Date of last payment | (L: G50) (T: CH66, CM87) |
| Monthly payment | (L: G51, G54-G55) (T: CH67-CH69, CM86, CM88-CM90) |
| Number | (L: G49) (T: CH64, CM84) |
| Type of debt (mortgage, loan, land contract) | (T: CH65, CM85) |

EXPENSES

(see also INSURANCE, MANAGEMENT OF RENTAL PROPERTY, RENT, REPAIRS AND IMPROVEMENTS, TAXES, and UTILITIES)

| | |
|---|---|
| Alimony | (T: G19) |
| Child care | (T: G18) |
| Completeness indicators | (LX: INDREFC) (TX: INDEXPC, INDYEXPC) |
| Food stamps | (T: G27-G27A) |
| Incidental | (T: CT66-CT69, CH117-CH120, CM145-CM148, CL78-CL81) |
| Meals (for lodgers) | (T: CL11-CL16, CL23-CL24:B, CL66-CL67) |
| Medical/nursing care | (T: G16, G28) |
| Parking | (T: CT28-CT30, CM30-CM32, CL35-CL37) |

HOUSING SUBSIDIES

| | |
|---|---|
| Amount | (L: D73-D75) (LX: Y14) (T: CH73) |
| Frequency of eligibility review | (L: D77) |
| Number of subsidized units on property | (L: D76) |
| Previous unit subsidized | (T: D72) |
| Program granting subsidy | (L: D71, D72) (T: CT5, CH72) |
| Reliability of landlord information | (L: D83H) |

INCOME AND ASSETS

| | |
|---|---|
| Assets | (T: G20-G22) |
| Completeness indicators | (TX: INDYEXPC, YCMPLT) |
| Income received: | |
| Aid to families with dependent children (AFDC) | (T: G24B, G25B) (TX: ESTADC) |
| Alimony and child support | (T: G24J, G25J) (TX: ESTALI) |
| Business or profession | (T: G24R, G25R) (TX: ESTSEY) |
| Cash contribution | (T: G24L, G25L) (TX: ESTCASH) |
| Commissions, bonuses, tips | (T: G24Q, G25Q) (TX: ESTTIP) |
| Dividends | (T: G24O, G25O) (TX: ESTDIV) |
| Education stipend | (T: G24K, G25K) (TX: ESTEDUC) |
| Food stamps | (T: G27B) |
| General assistance | (T: G24D, G25D) (TX: ESTGENA) |
| Farm | (L: C92, D9B, D29-D31, P13) |
| Federal housing subsidy | (T: CH73) |
| Housing allowance | (T: CT5, CH72, H60-H61, H73) |
| Insurance claim | (T: CT62, CH113, CM141, CL74) |
| Interest | (T: G24N, G25N) (TX: ESTINT) |
| Other public assistance | (T: G24E, G25E) (TX: ESTPUBA) |
| Rents and royalties (e.g., from lodgers; for landlord rental income see RENT) | (T: G23, G24M, G25M) (TX: ESTRENT) |
| Temporary rent reduction | (T: CT53-CT55, CM124-CM126, CL60-CL65) |
| Regular rent reduction (including cheaper meals) | (T: CT12-CT17, CM11-CM18, CL17-CL24:B, CL66-CL67) |
| Retirement pension | (T: G24I, G25I) (TX: ESTRET) |
| Social security | (T: G24A, G25A) (TX: ESTSS) |
| Supplementary security income | (T: G24C, G25C) (TX: ESTSSI) |
| Unemployment compensation | (T: G24F, G25F) (TX: ESTUN) |
| Veteran disability compensation | (T: G24H, G25H) (TX: ESTVET) |
| Wages and salaries | (T: E14-E15, E28-E29, E36, F14-F15, F28-F29, F36, G24P, G25P) (TX: ESTWAGE) |
| Workman's compensation | (T: G24G, G25G) (TX: ESTWMC) |

INCOME AND ASSETS (cont.)

| | |
|---|---|
| Income received (cont.) | |
| Other source | (T: G24S, G25S, G26) (TX: ESTOTH, YAGG) |
| Total from all sources | (TX: THINOP, PTHI, THI) |
| Interviewer estimate of household income | (TA: H104) |
| Missing income | (TX: YMISS, YMIS2) |

INSURANCE

| | |
|---|---|
| Arranged by professional management firm | (L: E5F) |
| Cancellation/problems keeping | (L: G74-G75) |
| Cost of self-insurance | (LX: Y32) (TX: HY32) |
| Coverage: fire, theft, etc. | (L: G62, G67) (T: CT58, CH109, CM137, CL70) |
| Included in mortgage/loan/land contract payment | (L: G18, G39D, G48C, G51D) (T: CH35, CH54D, CH55D, CH67D, CM49, CM74D, CM75D, CM88D) |
| Income received from claim | (L: G71-G72) (T: CT62, CH113, CM141, CL74) |
| Insurance indicators | (L: G60) (T: CT56, CH107, CM135, CL68) (TX: INDINS, INDINSC, INDESTIN) |
| Number of policies | (L: G61, G66) (T: CT57, CH108, CM136, CL69) |
| Paid for housing repair/improvement | (L: G73) (T: CT63-CT65, CH114-CH116, CM142-CM144, CL75-CL77) |
| Premium cost | (L: G63-G65, G68-G70) (LX: T35, Y31) (T: CT59-CT61, CH110-CH112, CM138-CM140, CL71-CL73) (TX: HY31) |
| Reliability of landlord information | (L: G81, G82F-G) |

MANAGEMENT OF RENTAL PROPERTY

| | |
|---|---|
| Allowance program effects on landlord's property management | (LA: K10-K11A) |
| Employees of landlord | (L: E6) |
| Cost (wages) | (L: E13-E15, E22A-C) (LX: Y67, Y105, Y107) |
| Live on property | (L: E16) |
| Number in firm that owns property | (L: V32-V34) |
| Number for property | (L: E7, E8, E23) |
| Performed repair/improvement | (L: F10) |
| Position or title | (L: E9, E10, E20-E21, E24) |
| Reliability of landlord information | (L: E40, E41B) |
| Rent reduction or waiver received | (L: E17-E19) (LX: Y70, Y106, Y108) |
| Expenses: | |
| Cash expenses | (LX: Y109, Y110, Y135) |
| Accountant | (L: E25:3-E28:3) (LX: Y60) |
| Advertisement | (L: E25:10-E28:10) |
| Cleaning service contract and occasional work | (L: E25:12-E28:12, E25:14-E28:14) (LX: Y103) |
| Equipment service contract | (L: E25:13-E28:13) (LX: Y104) |
| Exterminating service | (L: E25:11-E28:11) (LX: Y62) |
| Gross cost | (LX: Y137) |
| Janitorial supplies | (L: E25:9-E28:9) (LX: Y68) |
| Legal services | (L: E25:1-E28:2) (LX: Y59) |
| Management firm | (L: E3-E5) (LX: Y58) |
| Office space and supplies | (L: E25:6-E28:8) (LX: Y63) |
| Real estate broker | (L: E25:4-E28:4) (LX: Y41) |
| Rental agent | (L: E25:5-E28:5) (LX: Y61) |
| Repairs and improvements (see REPAIRS AND IMPROVEMENTS) | |
| Selling portion of property | (L: C6A) |
| Other incidental expenses | (L: G76-G80) (LX: Y140, Y141) |
| Reliability of landlord information | (L: E40, E41A, E41C, G82H) |
| Noncash expenses (value of unpaid labor): | |
| Maintenance | (L: F23-F28) (LX: Y111, Y136, Z56) |
| Management | (L: F17-F22) (LX: Y112, Y133, Z57) |
| Other operations | (L: F29-F34) (LX: Y113, Y134, Z58) |
| Repairs and improvements (see REPAIRS AND IMPROVEMENTS) | (L: F8-F8A) |
| Time spent on unpaid labor: | |
| Household members | (T: CT45, CH92, CM115, CL52) |
| Owner and spouse | (L: F17-F17A, F23-F23A, F29-F29A) |
| Relatives and friends | (L: F18-F18A, F24-F24A, F30-F30A) |
| Landlord's real estate experience | (L: B12, B36) (LX: L2) |
| Nonsampled properties owned | (LA: T41) |
| Other properties owned | (L: B5-B7) (LX: L36) |

MANAGEMENT OF RENTAL PROPERTY (cont.)

| | |
|---|---|
| Landlord's real estate experience (cont.) | |
| Rental properties owned | (LA: L5) |
| Sampled properties owned | (L: V14) (LA: T39) |
| Landlord-tenant relations: | |
| Landlord satisfaction with tenants | (L: H16-H22) |
| Tenant complaints | (L: H27-H28) (T: BT91, BT98, BM91, BM98, BL92, BL98) |
| Tenants related to owner | (L: V46-V47, H15) (LX: Z8, Z9) (T: A67) |
| Regular rent reduction | (L: D19, D45, D58) |
| Temporary rent reduction | (L: D21, D47, D59) |
| Tenant satisfaction with landlord | (T: BT94, BM94, BL94) |
| Plans to sell property | (L: J13, J14) (LX: Z43) |
| Reason for selling | (L: J15) |
| Selling price | (L: J16-J19) (T: CH79, CM99) |
| Problems facing landlords today | (LA: K48) |
| Professional services employed | (LX: Z42) |
| Rent policy: | |
| Deposit required | (L: H25-H26) |
| Lease | (L: H23-H24) (LA: K30) (T: CT7-CT8, CM6-CM7, CL6-CL7, D48:B) |
| Likelihood of raising rent | (L: J6-J8) |
| Payment period | (T: CT9, CM8, CL8) (TX: PP, PPM) |
| Rent change | (L: D78) (T: CT18-CT25, CM21-CM28, CL25-CL32) |
| Rent collection | (L: E5B, E25:5-E28:5, H20) |
| Screening | (L: H29) (LX: Z41) |
| Willingness to rent to families, college students, etc. | (T: BT93, BM93, BL93) |
| Resident landlord | (L: V35, V48, C84, D17, D43, D43A, D56, P6) (LX: L3, L19) (T: BT88, BM88, BL88) (TX: LLC6) |
| Responsibility for general upkeep and maintenance | (T: BT89, BM89, BL89) |
| Vacancy: | |
| Number of evictions | (L: H5-H6) (LX: Z63) |
| Number of households that moved | (L: H3) (LX: Z67) |
| Number of vacant units | (L: H7-H8) |
| Period of vacancy | (L: H4, H12) |
| Reason unit unavailable for rent | (L: H13-H14, J3, J6) |

NEIGHBORHOOD CHARACTERISTICS

| | |
|---|---|
| Abandoned buildings and vehicles | (R: A12G-H, A25B-C, B66B-C, VLA9B-C) (RX: BA36, BA37) (N: SO22-SO23) |
| Access to facilities and services: | |
| Commercial | (N: NQ3:V-X) |
| Educational | (N: NQ3:O-U) |
| Institutional | (N: NQ3:A-F) |
| Recreational | (N: NQ3:G-I) |
| Religious worship | (N: NQ3:J-N) |
| Utilities and other services | (N: NQ5) |
| Air pollution level | (T: BT69D, BH69D, BM69D, BL69:D) (N: NQ14) |
| Allowance program effects on neighborhood: | |
| Past effects | (LA: K13-K13A) (TA: H11-H11A) |
| Possible future effects | (LA: K14-K14A) (TA: H12-H12A) |
| Body of water | (N: NQ11, A11) |
| Changes: | |
| Buildings converted to commercial use | (T: BT54, BH54, BM54, BL54) BL58-BL59:D) |
| Different types of people moving in or out | (L: I9-I10) (T: BT58-BT59:D, BH58-BH59:D, BM58-BM59:D, |
| Fewer buildings | (T: BT56, BH56, BM56, BL56) |
| More buildings | (T: BT55, BH55, BM55, BL55) |
| Condition of all properties/ buildings in area | (L: I5) (T: BT52-BT52A, BH52-BH52A, BM52-BM52A, BL52-BL52:A) (N: SO24) (NX: QRB) |
| Condition of property/building/ unit compared with others in area | (L: I7) (LX: BA20) (T: BT86, BH86, BM86, BL86) (TX: HEA2) (R: B85-B87, VLB27-VLB28) (RX: BA14) |
| Construction activity | (N: SO19, SO20) |
| Employment | (NX: WGTFEMP, WGTMEMP, GAE1, GAE2) |
| Floodplain | (N: NQ13) |
| Highways, streets, roads | (T: BT69B, BH69B, BM69B, BL69:B) (R: A22, B62, VLA7) (N: NQ6-NQ8, A6-A8) |
| Identifiers: | |
| Census block | (LX: CBLOCK) (TX: CBLOCK) (RX: CBLOCK) (N: NBE1-2, NCTBL1A-B, NCTBL2A-B) |
| Census enumeration district | (LX: CED) (TX: CED) (RX: CED) (N: NBE1-2, NCTBL1A-B, NCTBL2A-B) |

NEIGHBORHOOD CHARACTERISTICS (cont.)

| | |
|---|---|
| Identifiers (cont.) | |
| Census tract | (LX: CTRACT) (TX: CTRACT) (RX: CTRACT) |
| Geographic area | (TX: AGGNBH) (NX: AREA, CITY, DISTRT) |
| Neighborhood code | (LX: NBHDCODE) (TX: NBHDCODE) (RX: NBHDCODE) (NX: NBHDCODE) |
| Street segment | (NX: NBHDSEG) |
| Taxing unit | (LX: X39) (TX: TU) |
| Land use | (N: NQ1:Y, NQ2:Y) (NX: ACRES) |
| Body of water | (R: A12E, A18L) (N: NQ1:W, NQ2:W) |
| Cemetery | (N: NQ1:S, NQ2:S) |
| Commercial | (R: A18C) (RX: BS5) (N: NQ1:F-G, NQ2:F-G, SO9) |
| Farmland | (R: A18G) (N: NQ1:R, NQ2:R, SO12, SO15, SO16) |
| Industrial | (R: A18D-E, (N: NQ1:H-L, NQ2:H-L) |
| Institutional | (R: A18K) (RX: BS10) (N: NQ1:M-N, NQ2:M-N, SO11) |
| Mixed-use, other | (R: A18B, A18J) (N: NQ1:X, NQ2:X, SO7, SO10) |
| Open space | (R: A12A-B, A12D, A18F, A18I) (N: NQ1:O-Q, NQ2:O-Q, SO14, SO17, SO18) |
| Parking lot | (R: A18H) (N: NQ1:T, NQ2:T, SO13) |
| Residential | (R: A18A) (N: NQ1:A-E, NQ2:A-E, SO1-SO8) |
| Streets and roads | (N: NQ1:V, NQ2:V) |
| Vacant buildings and mobile home spaces | (R: A12C) (N: NQ1:U, NQ2:U) |
| Location | (NX: X, Y, DIST1CBD, DIST2CBD) |
| Mobile homes in area | (N: SO8, SO21) |
| Neighbors: | |
| Behavior | (T: BT62-BT62A, BH62-BH62A, BM62-BM62A, BL62-BL62:A) |
| Degree of acquaintance with neighbors | (T: BT61, BH61, BM61, BL61) |
| Income level | (T: BT57-BT57A, BH57-BH57A, BM57-BM57A, BL57-BL57:A) |
| Proportion of friends living nearby | (T: BT71, BH71, BM71, BL71) |
| Upkeep of properties | (L: I11) (T: BT60-BT60A, BH60 BH60A, BM60-BM60A, BL60-BL60:A) |
| Noise level | (T: BT69C, BH69C, BM69C, BL69:C) (N: NQ15) |
| Planned highways and facilities | (N: NQ4, NQ9, A9) |

NEIGHBORHOOD CHARACTERISTICS (cont.)

| | |
|---|---|
| Problems with gangs, traffic, etc. | (T: BT69-BT70, BT91:J, BH69-BH70, BM69-BM70, BM91:J, BL69-BL70, BL92:J)<br>(TX: BA32, BA33) |
| Property values | (L: I12) |
| Public transportation | (T: BT69J, BH69J, BM69J, BL69:J)<br>(N: NQ5A) |
| Quality: | |
| Cleanliness | (T: BT69E, BH69E, BM69E, BL69:E)<br>(R: A26, B65) (N: SO28) (NX: CLN) |
| Elementary schools | (T: BT66-BT67B, BH66-BH67B, BM66-BM67B, BL66-BL67:B) |
| Landscaping | (R: A16, B61) (RX: RLNDSCP, PLNDSCP, LNDSCP, BA13, LNDSCPNG) (N: SO25) (NX: QRL) |
| Neighborhood | (L: I8) (T: BT100-BT101, BH100-BH101, BM100-BM101, BL100-BL101) |
| Nonresidential land | (R: A19-A21, B67-B68) |
| Police | (T: BT64-BT64A, BH64-BH64A, BM64-BM64A, BL64-BL64:A)<br>(TX: BA31A) |
| Sidewalks | (R: A24, B64) (N: SO27) (NX: QSW) |
| Streets | (R: A23, B63, VLA8)<br>(RX: RSTREET, PSTREET, STREET, RVSTREET, PVSTREET, VSTREET)<br>(N: SO26) (NX: QPS) |
| Vacant land | (N: SO29) (NX: QVL) |
| Yards and grounds | (R: A17) (RX: RYARD, PYARD, YARD) |
| Railroads | (N: NQ10, A10) |
| Safety | (T: BT63-BT63A, BT65, BH63-BH63A, BH65, BM63-BM63A, BM65, BL63-BL63:A, BL65) |
| Satisfaction with neighborhood | (L: I6) (T: BT102, BH102, BM102, BL102) |
| Soil limitations on residential improvement | (N: NQ12) |
| Street lighting | (T: BT69A, BH69A, BM69A, BL69:A)<br>(R: A12F, A25A, B66A, VLA9A)<br>(N: NQ5E) |
| Type of residential buildings | (R: A14, A15, B60, B84, VLA6, VLB26) |

NEIGHBORHOOD CHARACTERISTICS (cont.)

| | |
|---|---|
| Urban/rural | (L: I4) (T: BT49, BT53, BH49, BH53, BM49, BM53, BL49, BL53, CT2, CH3, CH12, CM2, CL2)<br>(R: A13, B83, VLA5, VLB25)<br>(N: URBNBHD) |

PERSONAL CHARACTERISTICS

| | |
|---|---|
| Age | (L: B25) (LX: L6) (T: G9, G12)<br>(TX: HAGE, SAGE, MODHAGE1) |
| Attitudes toward: | |
| Different types of people (renters, landlords) | (LA: K46) (TA: H94) |
| People of different races | (LA: K46G-J, K47)<br>(TA: H94:F, H94:H-J, H95, H96) |
| Education | (L: B23-B24) (LX: L38)<br>(T: G10-G10A, G13-G13A)<br>(TX: HEDUC, SEDUC, MODHED1) |
| Employment: | |
| Household heads' employment history: | |
| Dates | (T: E6-E7, E17-E18, E22-E23, E31-E32, F6-F7, F17-F18, F22-F23, F31-F32) |
| Location | (T: E8, E24, F8, F24) |
| Occupation and industry | (T: E12-E13, E26-E27, F12-F13, F26-F27) |
| Salary | (T: E14-E15, E28-E29, F14-F15, F28-F29) |
| Status (employed, on strike) | (T: E3-E5, E19-E21, E33-E34, F3-F5, F19-F21, F33-F34)<br>(TX: HLFP, FLFP) |
| Transportation, travel time | (T: E9-E10, F9-F10) |
| Work hours | (T: E16, E30, E35, F16, F30, F35) |
| Household members: | |
| Farming or other business | (T: CT4, CT70-CT71, CH5, CH14, CH121-CH122, CM4, CM149-CM150, CL4, CL82-CL83) |
| Number of employed adults | (TX: ENS, NS, NEMPP) |
| Number of unemployed adults | (TX: ENA, NA) |
| Status (employed, on strike) | (T: G11-G11C) |
| Work for landlord | (T: CT12-CT13, CM11-CM13, CL17-CL18) |
| Landlord: | |
| Real estate job: | |
| Income | (L: B11, B28) (LX: L7) |
| Time spent | (L: B27) (LX: L20) |
| Non-real estate job: | |
| Occupation and industry | (L: B34) (LX: L21) |
| Time spent | (L: B29-B30) (LX: L12) |

PERSONAL CHARACTERISTICS (cont.)

| | |
|---|---|
| Household characteristics completeness indicator | (TX: HCPLT) |
| Household composition | (T: G7) (TX: HSTRUC, FELIG) |
| Children | (T: BT68, BH68, BM68, BL68, G17) (TX: NC, NM, ENM) |
| Lodgers | (T: A23, G3, G4) |
| Life-cycle stage of family | (T: FCYCLE, HCYCLE) |
| Pets | (T: G29) |
| Relationship of household members | (T: A21-A22, G6) |
| Size | (T: A20, G2, G14-G15) (TX: NH, EHS, PPERR) |
| Income level (for landlords, see RENT; for households, see INCOME AND ASSETS) | (L: B11, B28) (TA: H104) |
| Interaction with government and involvement in public affairs | (LA: K40-K44) (TA: H90-H92A) |
| Participation in organizations: | |
| Property owner, real estate | (L: B19-B20) |
| Tenant, fair-housing | (L: B13-B17) (T: BT96-BT99, BM96-BM99, BL96-BL99) |
| Other | (L: B21-B22A) (T: BT72-BT83, BH72-BH83, BM72-BM83, BL72-BL83) (TX: MORGCNT, FORGCNT, RORGCNT) |
| Race | (L: B38, H30, K50) (LX: L17) (T: G30-G31) (TA: H102, H103) (TX: HHRACE, MDHRACE1) |
| Sex | (L: B37, K49) (LX: L16) (T: G8) (TX: ATMODRSP, ALTATMOD) |

PROPERTY CHARACTERISTICS

| | |
|---|---|
| Acquisition: | |
| Date | (L: V13, V23, A5-A6, P1, P4, P14) (LX: Z1) (T: A36-A37, A48-A49, A59-A60, CH17-CH18, CM34) (TX: W4, W5) |
| Financial records given to new owner | (L: V22, V24, V49, A16) (T: A38, A40, A50, A52, A61, A63, A64:A, CH2A, CH11, CH75) |
| How acquired (bought, traded, inherited) | (L: A4, A7, A10) (T: CH16, CH19-CH20B, CM35-CM36) |
| Reason | (L: A8-A9, A11) (LX: Z2) |
| Value/worth/purchase price | (L: A12-A15) (LX: X63) (T: CH21-CH26, CM37-CM40) (TX: W6) |

PROPERTY CHARACTERISTICS (cont.)

| | |
|---|---|
| Bedrooms in units on property | (L: C75-C78, C80, C85, C87)<br>(LX: X38) |
| Buildings on property: | |
| Condition: | |
| Outbuildings (sheds) | (R: A3, A5-A6, A8, VLA3, VLA4)<br>(R: ROUTBLDG, POUTBLDG, OUTBLDG) |
| Residential | (L: J4) (LX: EA15) |
| Number: | |
| Commercial | (L: C61-C62, C67-C68)<br>(LX: T3, X9) (TX: NNRBLDS) |
| Mixed-use | (TX: NMXBLDS) |
| Outbuildings (sheds) | (R: A7) |
| Residential | (L: C52, C53, C57) (LX: T2, X8)<br>(TX: NRESBLDG) |
| Total | (TX: TOTNBLDG) |
| Changes to property | (L: C39-C41) |
| More land | (L: C17-C22) |
| Number of buildings | (L: C23, C25) |
| Number of units | (L: C24, C26) |
| Less land | (L: C3-C12) |
| Number of buildings | (L: C13, C15) |
| Number of units | (L: C14, C16) |
| More buildings | (L: C23, C27) (R: A1, VLA1) |
| Number of buildings | (L: C25, C28) (LX: X61) |
| Number of units | (L: C26, C29) |
| Fewer buildings | (L: C13, C32) (R: A2, VLA2) |
| Number of buildings | (L: C15, C33-C35) (LX: X62) |
| Number of units | (L: C16, C36) |
| More units | (L: C24, C26, C29-C31) (LX: X59) |
| Fewer units | (L: C14, C16, C36-C38) (LX: X60) |
| Subdivided units indicator | (LX: DS42) |
| Farmland | (L: C91, P12) (LX: INDFARM)<br>(T: CT3, CH4, CH13, CM3, CL3)<br>(TX: INDFARM) (R: A4) |
| Farmed by resident/tenant | (L: C93)<br>(T: CT4, CH5, CH14, CM4, CL4) |
| Income received | (L: C92, D9B, D29-D31, P13) |
| Size | (T: CT72, CH123, CM151, CL84) |
| Financial return (see RENT) | (L: J23-J28) |
| Habitability | (L: V35A-V37, V39) |
| Identifier | (LX: ATP) (TX: ATP) (RX: ATP) |
| Observable features in apartment complex or mobile home park | (R: A12) |

PROPERTY CHARACTERISTICS (cont.)

| | |
|---|---|
| Mobile homes on property | (L: C42, D6, D9C-D, D32, D33) |
| Number of mobile homes | (L: C43, C49-C50, P9-P10) (LX: X34, X35) (TX: NMHUNTS) |
| Number of spaces | (L: C46-C47, P8) (TX: NEUNTS) |
| Tenure of mobile home and land (rented, owned) | (T: A27, A69-A73, CM5, CM15, CM19, CM19A, CM28A, CM33, CM41, CM52A, CM53, CM56, CM93, CM101X, CM122, CM127) |
| Number of units on property: | |
| Allowance program: | |
| Evaluated | (LA: K18, K18A) (LX: Z65) |
| Failed evaluation | (LA: K20, K21) |
| Occupants receiving payments | (LA: K28) |
| Commercial | (L: V43-V44, C55, C58-C61, C63-C69, D9A, F14, P11) (LX: X28) (TX: DRNCOM) |
| Landlord-occupied | (L: V48A) |
| Leased | (L: H23, H24) |
| Occupied | (L: H9) |
| Rented | (L: H10-H11) |
| Residential | (L: C44, C70-C72, D5, P7) (LX: T1, X1) (TX: RESUNIT) |
| Furnished | (L: C73) |
| Lodger | (L: C75:1, C76:1) (LX: X36) (TX: NRUNTS, NLUNTS) |
| Regular tenant (i.e., not mobile home, lodger) | (L: C54, C75:2-6, C76:2-6, C78:2-6, C79, C81, C83) (LX: X2-X6) (TX: NTUNTS) |
| Subsidized | (L: D76) |
| Vacant | (L: H7-H8) |
| Ownership: | |
| Business firm | (L: B9-B12) (LX: L2) |
| Legal owner | (L: V6-V16, V21, V28) (LX: ORID) (LA: IORID1-10) (T: A30-A33, A42-A45, A54-A57) (TX: ORID) (RX: ORID) |
| Relationship of respondent to property | (L: V27-V30, V49-V58, A2, B2, B4, B8, B26-B26A, C1, D1, E1, F1, F16, G1, H1, I2, J1, K2, P2, P5) |
| Type of ownership (partnership, trust, corporation) | (L: V25-V26, V31, V45) (LX: L9) |
| Parking availability | (T: CT27, CM29, CL34) (RX: GARGECPT) |
| Carport | (R: B46-B48) (RX: ES17) |
| Driveway | (R: B52-B53) |
| Garage | (R: B42-B45, VLB15) (RX: ES16) |
| Open space | (R: B49-B51) |

PROPERTY CHARACTERISTICS (cont.)

| | |
|---|---|
| Quality: | |
| Cleanliness | (RX: EA11) |
| Condition | (L: I7) (LX: BA20) |
| Landscaping | (R: B54) |
| Sidewalks and walkways on property | (R: B57) (RX: RSIDWLK, PSIDWLK, SIDWLK, EA9) |
| Yard and grounds maintenance | (T: BT45-BT45A, BH45-BH45A, BM45-BM45A, BL45-BL45:A) |
| | (R: B55-B56) |
| Resident landlord | (L: V35, V48, C84, D17, D43, D43A, D56, P6) (LX: L3, L19) |
| | (T: BT88, BM88, BL88) (TX: LLC6) |
| Resident employee | (L: E16) |
| Rooms in units on property | (L: C88) (LX: X74) |
| Size (acres) | (T: CT73, CH124, CM152, CL85) |
| Sale date | (L: V10, P1, P4, P14) (T: A34, A46, A58) |
| Swimming pool | (R: A10) |
| Tenure and type | |
| Buildings, mobile homes | (L: C45, C48, C51) |
| Rented, owned | (L: V38) (LX: TENURE, W1TENURE) |
| | (T: A27, A35, A47, A66-A67, A70-A73, CM19A) |
| | (TX: CTENUR) (RX: CTENUR) |
| Residential, commercial | (TX: FLDPTYPE) |
| Single-unit, multiunit | (T: A65, BT95, BM95, BL95) |
| | (TX: HES1) (R: A11) |
| Under construction | (L: V40-V42) |
| Value: | |
| Appreciation amount | (TX: HY16) |
| Assessed value | (LX: X40, X41, X45) |
| | (TX: INDVALC, HX45, HX47, HX48, W1, SLAND, SIMPR) |
| Owner estimate of market value | (L: J16-J22) (LX: X43) |
| | (T: CH79-CH81, CM99-CM101) |
| | (TX: HX43) |
| Ratio of nonfarm value to acquisition cost | (LX: FARMADJ) (TX: FARMADJ) |
| Ratio of owner estimate to assessed value | (LX: EQFACTOR) (TX: EQFACTOR) |
| Sale of capital to homeowner | (TX: HY18) |
| Value of properties in area | (L: I12) |
| Yard space | (T: BT21, BH21, BM21, BL21) |

RENT

| | |
|---|---|
| Collectable if (owned) unit rented | (L: C86) (T: CH80, CM100) |
| Collected/paid: | |
| Commercial | (L: D26, D28, D62-D63, D65-D66, D68-D69) (LX: Y13) |
| Farmland | (L: C92, D29-D31) |
| Residential | (L: D10-D12, D23-D24) (LX: Y11, Y12) |
| Lodger | (L: C77:1) (T: CL9-CL10) |
| Mobile home resident | (L: D32-D38, D49-D53, D60-D61) (T: CM9-CM10A) |
| Tenant | (L: C77:2-6, C82, C89) (T: CT10-CT11) |
| Other | (L: D70) |
| Total: | |
| Annualized rent roll | (LX: T25) |
| Contract | (LX: Y79) (TX: CONTRENT) |
| Full market | (L: D79-D81) |
| Gross | (LX: Y138) (TX: MOGGRENT) |
| Completeness indicator | (LX: INDREFC) |
| Deposit | (L: H25-H26) |
| Household rent status (full rent, reduced rent, free rent) | (TX: RSTAT) |
| Parking fee | (T: CT28-CT30, CM30-CM32, CL35-CL37) |
| Payment period | (T: CT9, CM8, CL8) (TX: PP, PPM) |
| Reduction, waiver | (LX: Y15) |
| Cheaper meals for lodgers | (T: CL66-CL67) |
| For employees | (L: E17-E19) (LX: Y106-Y108) |
| Regular | (L: D19-D20, D45-D46, D58) (T: CT12-CT17, CM11-CM18, CL17-CL24:B) |
| Temporary | (L: D21-D22, D47-D48, D59) (T: CT53-CT55, CM124-CM126, CL60-CL65) |
| Reliability of landlord information | (L: D3-D4, D9E-F, D82, D83A-G) |
| Rent changes | (L: D78) (T: CT18-CT25, CM21-CM28, CL25-CL32) |
| Rent loss | |
| Commercial | (L: D25-D27, D62-D68) (LX: Y23) |
| Residential: | |
| Bad debts | (L: D15-D16, D41-D42, D55) (LX: Y22) |
| Resident landlord's unit | (L: C86, D17-D18, D43-D44, D56-D57) |
| Vacancy | (L: D13-D14, D39-D40, D54) (LX: Y21) |

REPAIRS AND CAPITAL IMPROVEMENTS

| | |
|---|---|
| Arranged by professional management firm | (L: E5E) |
| Complaints about work done | (L: F12) (T: CT50, CH97, CM120, CL57) |
| Completed by previous owner just before property sold | (L: A17-A19) |
| Cost compared with other years | (T: CH99-CH100, CM128-CM129) |
| Cost to improve building | (L: J5) |
| Depreciable/operating expense | (L: F13) (T: CT51, CH98, CM121, CL58) |
| Description | (L: F4-F5) (T: CT41-CT42, CH88-CH89, CM111-CM112, CL48-CL49) |
| Ever refused loan to improve property | (T: CH105, CM134) |
| Expenses: | |
| Cash expenses | (L: F6-F7, F9) (T: CT43-CT44, CT46, CT52, CH90-CH91, CH93, CM113-CM114, CM116, CM123, CL50-CL51, CL53, CL59) |
| Air conditioning | (LX: Y146) (TX: HY146, TY146) |
| Appliance | (LX: Y142) (TX: HY142, TY142) |
| Capital addition | (LX: Y93, Y123) (TX: HY93, TY93) |
| Energy and plumbing | (LX: Y99, Y129) (TX: HY99, TY99) |
| Painting | (LX: Y101, Y131) (TX: HY101, TY101) |
| Repairs | (LX: Y95, Y125, Y135) (TX: HY95, TY95) |
| Structural remodeling and landscaping | (LX: Y97, Y127, Y144) (TX: HY97, HY144, TY97, TY144) |
| Noncash expenses (value of unpaid labor) | (L: F8-F8A) |
| Air conditioning | (LX: Y147) (TX: HY147, TY147) |
| Appliance | (LX: Y143) (TX: HY143, TY143) |
| Capital addition | (LX: Y94, Y124) (TX: HY94, TY94) |
| Energy and plumbing | (LX: Y100, Y130) (TX: HY100, TY100) |
| Painting | (LX: Y102, Y132) (TX: HY102, TY102) |
| Repairs | (LX: Y96, Y126, Y136) (TX: HY96, TY96) |
| Structural remodeling and landscaping | (LX: Y98, Y128, Y145) (TX: HY98, HY145, TY98, TY145) |
| Time spent on unpaid labor | (T: CT45, CH92, CM115, CL52) |
| Indicators: | |
| Capital addition | (TX: INDMCAP) |
| Completeness | (TX: INDREPC, INDHRSC) |
| Repair | (TX: INDMREP) |

REPAIRS AND CAPITAL IMPROVEMENTS (cont.)

| | |
|---|---|
| Means of payment (cash, credit, loan) | (L: F11, G73) (T: CT48-CT49, CT63-CT65, CH95-CH96, CH114-CH116, CM118-CM119, CM142-CM144, CL55-CL56, CL75-CL77) |
| Percentage of repair cost on residential portion | (L: F15) |
| Plans to make major repairs and improvements | (L: J9-J12) (T: CH101-CH104, CM130-CM133) |
| Reliability of landlord information | (L: F35-F36) |
| Repairs to qualify for allowance payments | (LA: K23-K25) (TA: H47-H49, H50-H53A) |
| Who did the work | (L: F10) (T: CT47, CH94, CM117, CL54) (TA: H51) |
| Who is responsible for general repair and painting of building exterior | (T: BT89:4, BM89:4, BL89:4) |
| Work done in reasonable amount of time | (T: BT90, BM90, BL90) |

RESIDENCY HISTORY

| | |
|---|---|
| Attempt to move in past year | (T: D6, D7, D10) |
| Housing search | (T: D11-D16) |
| Problems in finding housing | (T: D17-D24) |
| Reason considered moving | (T: D8, D9) |
| Reason decided not to move | (T: D26-D26A) |
| Current residence: | |
| Household composition | (T: D46, D51, D64-D66) |
| Housing search | (T: D37-D41, D43-D44, D49) |
| Moving expenses | (T: D54-D56, D59-D63) |
| Problems in finding housing | (T: D45-D53) |
| Reason moved, chose this place | (T: D57-D57A) |
| Residency date | (T: D33-D36) |
| Tenure (owned, rented, occupied rent-free) | (TX: TENCHG) |
| Length of time in neighborhood | (T: BT50-BT51, BH50-BH51, BM50-BM51, BL50-BL51) |
| Plans to move | (T: D4-D5, D7, D25, D28-D28A) |
| Exit fee required from mobile home park | (T: D31-D32) |
| Reason moving | (T: D29-D30) |

RESIDENCY HISTORY (cont.)

| | |
|---|---|
| Previous residences: | |
| Apartment, single-family home | (T: D70, D126) |
| Characteristics (e.g., physical) | (T: D69, D72, D82, D86-D89, D92-D98, D129-D130) |
| Condition | (T: D99-D100) |
| Expenses: | |
| Rent | (T: D71, D75-D81B, D112-D114) |
| Utilities | (T: D82-D83) |
| Household composition | (T: D120-D122, D133-D135) |
| Location | (T: D42, D67A-D68B) |
| Neighborhood description | (T: D101-D108) |
| Number of residences, moves | (T: D110-D111, D124, D132, D137) (TX: NMOVEYR) |
| Property description | (T: D85-D91, D115-D119) |
| Reason moved, chose that place | (T: D109-D109A, D123-D123A, D131, D136) |
| Residency dates | (T: D67B) |
| Selling price | (T: D84, D85) |
| Tenure (owned, rented, occupied rent-free) | (T: D73-D74, D127-D128) |

TAXES

| | |
|---|---|
| Net due | (TX: NETTAX) |
| Real estate | (L: G57) (LX: Y24) (T: CH77, CM95) (TX: HY24, ESTRTAX) |
| Completeness indicator | (TX: INDTAXC) |
| Included in mortgage/loan/ land contract payment | (L: G19, G39D, G48C, G51D) (T: CH36, CH54D, CH55C, CH67D, CM50, CM74D, CM75C, CM88D) |
| Tax rate | (TX: TAXRATE) |
| Special assessments | (L: G56) (LX: Y40) (T: CH76, CM94) (TX: HY40) |
| Other taxes | (L: G58-G59B) (T: CH78, CM96-CM98) |
| Reliability of landlord information | (L: G81, G82E) |

UNIT CHARACTERISTICS

| | |
|---|---|
| Appliances: | |
| Availability: | |
| Air conditioner | (T: BT22:E, BH22:E, BM22:E, BL22:E) (TX: HDS18) |
| Clothes dryer | (T: BT22:G, BH22:G, BM22:G, BL22:G) |
| Dishwasher | (T: BT22:C, BH22:C, BM22:C, BL22:C) (TX: HDS16) |

UNIT CHARACTERISTICS (cont.)

| | |
|---|---|
| Appliances (cont.) | |
| Availability (cont.) | |
| Disposal | (T: BT22:D, BH22:D, BM22:D, BL22:D) (TX: HDS17) |
| Hot plate | (T: BL22:A1) |
| Refrigerator | (T: BT22:B, BH22:B, BM22:B, BL22:B) (TX: HDS15) |
| Sink | (T: BL22:B1) |
| Stove | (T: BT22:A, BH22:A, BM22:A, BL22:A) (TX: HDS14) |
| Washing machine | (T: BT22:F, BH22:F, BM22:F, |
| Condition | (T: BT24-BT25, BH24-BH25, BM24-BM25, BL24-BL25) |
| Landlord-supplied | (TX: LLAP) |
| Air conditioner | (T: BT23:E, BM23:E, BL23:E) (TX: LLC5) |
| Clothes dryer | (T: BT23:F, BM23:F, BL23:F) |
| Dishwasher | (T: BT23:C, BM23:C, BL23:C) (TX: LLC3) |
| Disposal | (T: BT23:D, BM23:D, BL23:D) (TX: LLC4) |
| Hot plate | (T: BL23:A1) |
| Refrigerator | (T: BT23:B, BM23:B, BL23:B) (TX: LLC2) |
| Stove | (T: BT23:A, BM23:A, BL23:A) (TX: LLC1) |
| Washing machine | (T: BT23:G, BM23:G, BL23:G) |
| Repairs | (LX: Y142, Y143, Y146, Y147) (TX: HY142, HY143, HY146, HY147, TY142, TY143, TY146, TY147) |
| Basement condition | (T: BT39, BH39, BL39) |
| Changes to unit: | |
| Fewer rooms | (T: BT8-BT8A, BH8-BH8A, BM8-BM8A) |
| More rooms | (T: BT7-BT7A, BH7-BH7A, BM7-BM7A) |
| Rooms converted to different use | (T: BT5-BT6E, BH5-BH6E, BM5-BM6E) |
| Subdivided units indicator | (LX: DS42) |
| Electrical fuses | (T: BT33-BT33A, BH33-BH33A, BM33-BM33A, BL33-BL33A) |
| Floor condition | (T: BT41, BH41, BM41, BL41) (TX: HDA21) |
| Furnished | (L: C90) (T: CT26, CM20, CL33) |
| Heating system | (T: BT26-BT28, BH26-BH28, BM26-BM28, BL26-BL28) (TX: HDS23, HDS24, CENTSTM, HDS26) |
| Identifier | (TX: UNIT) |

UNIT CHARACTERISTICS (cont.)

| | |
|---|---|
| Interior quality | (TX: INTQUAL) |
| Locks on doors and windows | (T: BT37, BH37, BM37, BL37) |
| Plumbing facilities | (T: BT11, BT29-BT32, BH11, BH29-BH32, BM11, BM29-BM32, BL11, BL29-BL32) |
| Rooms: | |
| Bathrooms | (T: BT12-BT13B, BH12-BH13B, BM12-BM13B, BL12-BL13:D) (TX: BATHS, HDS9, HDS10) |
| Bedrooms | (T: BT9, BT19, BH9, BH19, BM9, BM19, BL9) |
| Kitchen | (T: A16:C, A17:B, BT10, BH10, BM10, BL10) |
| Number in unit | (T: BT3, BH3, BM3, BL3) (TX: HDS1, HDS1A) |
| Occupant satisfaction | (T: BT14-BT17, BH14-BH17, BM14-BM17, BL14-BL17) |
| Types per unit | (T: BT4, BH4, BM4, BL4) |
| Satisfaction with unit | (T: BT84-BT85A, BH84-BH85A, BM84-BM85A, BL84-BL85A) (TX: HDA22) |
| Separate living quarters in unit | (T: A16:B, A17-A18) |
| Signs of rats, termites, pests | (T: BT43, BH43, BM43, BL43) |
| Storage space | (T: BT20, BH20, BM20, BL20) (TX: HDS12A) |
| Stories or levels in unit | (T: BT47-BT48, BH47-BH48, BL47-BL48) |
| Tenure and type: | |
| Regular unit, mobile home, lodger, condominium, cooperative | (T: A16, A25, A28, A64:B, CH15, CH74, CM109, D58) |
| Rented, owned, occupied rent-free | (T: A26-A26:A, A28-A28:B, A28C, A69, CT6, CM19A, CL5, CL37:X) (TX: TENURE) |
| Residential, commercial | (T: A16:A) (TX: UTYPE, TYPUNT) |
| Wall and ceiling condition | (T: BT38, BT40, BT42, BH38, BH40, BH42, BM38, BM40, BM42, BL38, BL40, BL42) (TX: HDA20) |
| Window condition | (T: BT34-BT36, BH34-BH36, BM34-BM36, BL34-BL36) (TX: HDA18) |

UTILITIES

| | |
|---|---|
| Availability in neighborhood: | |
| Electricity | (N: NQ5B) |
| Gas | (N: NQ5C) |
| Rubbish and garbage removal | (N: NQ5H, NQ5K, NQ5L) |
| Sewer system (public) | (N: NQ5F, NQ5G) |
| Water (piped-in) | (N: NQ5D) |
| Completeness indicators | (LX: T47, T48) (TX: INDUTILC) |
| Estimated expense indicators | (TX: ESTUE, ESTUG, ESTUF, ESTUO, ESTUW, ESTUS, ESTUR) |
| Expenses: | |
| Electricity | (L: E32:1-E35:1) (LX: Y49, Y114) (T: CT31:1-CT34:1, CH82:1-CH84:1, CM102:1-CM105:1, CL38:1-CL41:1) (TX: HY49, UE) |
| Fuel oil | (L: E32:3-E35:3) (LX: Y51, Y116) (T: CT31:3-CT34:3, CH82:3-CH84:3, CM102:3-CM105:3, CL38:3-CL41:3) (TX: HY51, UF) |
| Gas | (L: E32:2-E35:2) (LX: Y50, Y115) (T: CT31:2-CT34:2, CH82:2-CH84:2, CM102:2-CM105:2, CL38:2-CL41:2) (TX: HY50, UG) |
| Other fuel | (L: E32A:4-E35:4) (LX: Y52, Y117) (T: CT31:OF-CT34:4, CH82:OF-CH84:4, CM102:OF-CM105:4, CL38:OF-CL41:4) (TX: HY52, UO) |
| Rubbish and garbage removal | (L: E32:5-E35:5) (LX: Y53, Y118) (T: CT31:7-CT34:7, CH82:7-CH84:7, CM102:7-CM105:7, CL38:7-CL41:7) (TX: HY53, UR) |
| Sewer system (public) | (L: E32:7-E35:7) (LX: Y55, Y120) (T: CT31:6-CT34:6, CH82:6-CH84:6, CM102:6-CM105:6, CL38:6-CL41:6) (TX: HY55, US) |
| Water (piped-in) | (L: E32:6-E35:6) (LX: Y54, Y119) (T: CT31:5-CT34:5, CH82:5-CH84:5, CM102:5-CM105:5, CL38:5-CL41:5) (TX: HY54, UW) |
| Other utilities | (L: E36-E39) (LX: Y56, Y121) (T: CT35-CT36, CH85-CH86, CM106-CM107, CL42-CL43) (TX: HY56, UA1, UA2) |
| Total | (LX: Y25, Y42) (TX: HY25, U) |
| Fuel used for: | |
| Air conditioning | (L: E34D:1-2) (LX: X71) (T: CT32:D1,2,4, CH83:D1,2,4, CM103:D1-4, CL39:1,2,4D) (TX: HX71) |

UTILITIES (cont.)

| | |
|---|---|
| Fuel used for: | |
| Cooking | (L: E34A:1,2,4) (LX: X73)<br>(T: CT32:A1,2,4, CH83:A1,2,4, CM103:A1-4, CL39:1,2,4A)<br>(TX: HX73) |
| Space heating | (L: E34B:1,2,4) (LX: X70)<br>(T: CT32:B1,2,4, CH83:B1,2,4, CM103:B1-4, CL39:1,2,4B)<br>(TX: HX70) |
| Water heating | (L: E34C:1-2) (LX: X72)<br>(T: CT32:C1,2,4, CH83:C1,2,4, CM103:C1-4, CL39:1,2,4C)<br>(TX: HX72) |
| Reliability of landlord information | (L: E40, E41D-E) |

# Appendix C

## CROSS-WAVE INDEXES OF SURVEY VARIABLES

For each HASE survey type, this appendix presents an index of topically corresponding variables across all survey waves. When used with the appropriate codebooks, the index enables the user to track related variables from file to file.

### PURPOSE

As documented in Sec. II, survey instruments were frequently revised to meet new analytic requirements, resolve minor field problems, and reduce respondent burden. Questions were added, dropped, moved, separated into multiple smaller questions, or combined into single questions.[1] For ease of survey administration, all questions were renumbered to match the new sequence. Therefore, variables representing particular questions do not bear the same name from file to file. The cross-wave indexes indicate the name shifts over time for the convenience of users planning their analyses.

### COMPOSITION

The indexes are arranged in the following order: landlord (LL), household (TH), residential buildings (RB), neighborhood local sources (NS), and neighborhood street observation (NO) surveys. Within an index, the variables from the survey instrument proper are listed first, followed by variables from the various supplementary forms, including the record folder, validation form, refusal/breakoff report, and others as applicable. Generally, the variable names are the same as the question numbers in the codebooks.[2]

Within each index, the corresponding variable names are listed horizontally from left to right in the order the surveys were

---

[1] The substance of these changes is traced in Sec. II.

[2] We excluded from the indexes variables for which space on the files was reserved but never filled. Listed at the end of this appendix, they pertain to questions whose responses were never coded, and redundant or filler questions. Those questions may or may not be documented in a codebook.

administered. The column headings specify the file by survey type, site, and wave. For example, "TH22" heads the column of variables in the household survey file from Site II, wave 2. The II:2 variables are the references to which the variables in the other files are matched.[3] The Site II, wave 2 surveys marked the midpoint of the experiment, and their instruments have most in common with the instruments of earlier and later waves.

For clarity and brevity, we observe certain conventions in the index entries:

- Two or more variables that correspond to one variable on another file are bracketed if they are in numeric sequence. For example,

  A1 {A5, A6}

- To preserve the order of variables on the reference II:2 files, we do not bracket two or more nonsequential II:2 variables that correspond to one non-II:2 variable. The common variable is repeated next to each of its corresponding II:2 variables, which are listed in their proper sequence. For example,

| Non-II:2 | II:2 | | Non-II:2 | II:2 |
|---|---|---|---|---|
| A1 | A5 | | | {A5, A8} |
| | A6 | not | A1 | |
| | A7 | | | A6 |
| A1 | A8 | | | A7 |

  A footnote identifies the variables that are repeated in that manner.

- Variables that represent parts of a single question may be grouped. For example, D25:1-5 represents parts 1 through 5 of question D25. The alignment of different numbers of

[3] For the neighborhood surveys, which were administered only at waves 1 and 4, the I:1 variables are the references.

parts across files means that the groups of variables correspond as a whole. For example,

| | | | | |
|---|---|---|---|---|
| D25:1-5 | D32:1-3 | means | D25:1<br>D25:2<br>D25:3<br>D25:4<br>D25:5 | D32:1<br>D32:2<br>D32:3 |

The alignment of the same number of parts across files means that the parts correspond exactly. For example,

| | | | | |
|---|---|---|---|---|
| B12A-D | B14:A-D | means | B12A<br>B12B<br>B12C<br>B12D | B14:A<br>B14:B<br>B14:C<br>B14:D |

To clarify groupings that would otherwise be confusing, we enclose the numbers or letters that change within parentheses. For example,

U(1-4)A1 means U1A1, U2A1, U3A1, and U4A1

Other conventions unique to a particular survey are described at the beginning of its index.

## USE OF THE INDEXES

The following steps outline an appropriate use of the indexes.

1. Scan the topical index (Appendix B) to determine the reference variables of interest.[4] As noted, the II:2 variables are used as reference variables.
2. Verify the relevance of the variable's content by consulting the appropriate II:2 codebook.
3. In the index for the appropriate survey type, locate the variable name of interest in the II:2 column, the middle column printed in boldface type.

---

[4] Derived variables, which are covered in the topical index, are omitted in these indexes because their names do not change from file to file. Appendix D indicates which derived variables are on which files.

4. Locate the corresponding variable names for the other files of interest in columns to the left and right of the II:2 column.
5. Verify the comparability of information sought, response codes, and responding samples by checking the codebook entries for the corresponding variables.

We stress the importance of step 5. Instrument revisions entailed changes of response codes, skip patterns, and subtle alterations of meaning in the questions. Though the horizontally aligned variables correspond, they may not be identical in content or response values. For example, landlords were asked the number of hours a week they spend working on real estate business. The response "less than one hour per week" is represented by code 1 on the baseline files, code 169 on the LL12 file, and code 999 on the LL22 and LL13 files. In the remaining survey files, that response is incorporated into code 1, "one hour or less."

## LANDLORD SURVEY INDEX

The LL11 validation form had separate versions for single-unit and multiunit properties. As applicable, the variables on the single-unit version (prefixed by "VS") are bracketed with those of the multiunit version (prefixed by "VM").

Modules V, A through K

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | VSTAT:C | LSTAT:D | LSTAT:D | LSTAT:D | LSTAT:D | LSTAT:D |
| | VSTAB | VSTAT:B | LSTAT:B | LSTAT:B | LSTAT:B | LSTAT:B | LSTAT:B |
| | VATPB | ATPB | LBATP | LBATP | LBATP | LBATP | LBATP: |
| | VSTAG | VSTAT:I | LSTAT:I | LSTAT:I | LSTAT:I | LSTAT:I | LSTAT:I |
| | VATPG | ATPI | LIATP | LIATP | LIATP | LIATP | LIATP: |
| VINID | | | | | | | |
| VMO | | | | | | | |
| VDA | | | | | | | |
| VYR | | | | | | | |
| VFSTA | | | | | | | |
| | | | V1:HR | V1:HR | V1:HR | V1:HR | V1:HR |
| | | | V1:MN | V1:MN | V1:MN | V1:MN | V1:MN |
| | | | V1:AP | V1:AP | V1:AP | V1:AP | V1:AP |
| | V1 | V1 | V2 | V2 | V2 | V2 | V2 |
| | V2 | V2 | V3 | V3 | V3 | V3 | V3 |
| | V3 | V3 | V4 | V4 | V4 | V4 | V4 |
| | V4 | V4 | V5 | V5 | V5 | V5 | V5 |
| | | | V6 | V6 | V6 | V6 | V6 |
| | | | V6A | V6A | V6A | V6A | V6A |
| | V6 | V6 | V7 | V7 | V7 | V7 | V7 |
| | V7 | V7 | V8 | V8 | V8 | V8 | V8 |
| | | | V8A | V8A | | | |
| | V8:M | V10:M | V10:MO | V10:MO | V10:MO | V10:MO | V10:MO |
| | V8:D | V10:D | V10:DA | V10:DA | V10:DA | V10:DA | V10:DA |
| | V8:Y | V10:Y | V10:YR | V10:YR | V10:YR | V10:YR | V10:YR |
| | | | V11 | V11 | V11 | V11 | V11 |
| | | V11 | | | | | |
| | | V12 | | | | | |
| | | V13 | | | | | |
| | V11 | V14 | | | | | |
| | | | V13:MO | V13:MO | V13:MO | V13:MO | V13:MO |
| | | | V13:DA | V13:DA | V13:DA | V13:DA | V13:DA |
| | | | V13:YR | V13:YR | V13:YR | V13:YR | V13:YR |
| | | | | | | | V14A |
| | | V15 | V14 | V14 | V14 | V14 | V14B |
| | V18 | V27 | V15 | V15 | V15 | V15 | V15 |
| | | | V16 | V16 | V16 | V16 | V16 |
| | | | V17:HR | V17:HR | V17:HR | V17:HR | V17:HR |
| | | | V17:MN | V17:MN | V17:MN | V17:MN | V17:MN |
| | | | V17:AP | V17:AP | V17:AP | V17:AP | V17:AP |
| | V13 | V16 | V18 | V18 | V18 | V18 | V18 |
| | V14 | V17 | V19A | V19A | V19A | V19A | V19A |
| | V15 | V18 | V19B | V19B | V19B | V19B | V19B |
| | V16 | V19 | V20 | V20 | V20 | V20 | V20 |
| | | V21 | | | | | |
| | | V22 | | | | | |
| | V19 | V28 | V21 | V21 | V21 | V21 | V21 |
| | | | | | V21A | V21A | V21A |
| | | V23 | V22 | V22 | V22 | V22 | V22 |
| | | V25 | V23 | V23 | V23 | V23 | V23 |
| | | | V24 | V24 | V24 | V24 | V24 |
| | V21 | V30 | V25 | V25 | V25 | V25 | V25 |
| VD | V22 | V31 | V26 | V26 | V26 | V26 | V26 |
| V1 | | | | | | | |
| | V23 | { V32 | | | | | |
| | | { V33 | | | | | |
| | | | V27 | V27 | V27 | V27 | V27 |
| V2:A | V24 | V34 | V28 | V28 | V28 | V28 | V28 |
| V2:B | | | | | | | |
| V2:C | | | | | | | |
| | V25 | V35 | V29 | V29 | V29 | V29 | V29 |
| | V26 | V36 | V30 | V30 | V30 | V30 | V30 |
| | | | | | V30A | V30A | V30A |
| | | | | | V31 | V31 | V31 |
| V3 | V27 | V37 | V31 | V31 | V31A | V31A | V31A |
| V4 | V28 | V38 | V32 | V32 | V32 | V32 | V32 |
| V5 | V29 | V39 | V33 | V33 | V33 | V33 | V33 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| V6 | V30 | V40 | V34 | V34 | V34 | V34 | V34 |
| | A22 | A21 | V35 | V35 | V35 | V35 | V35 |
| | V31 | V41 | V35A | V35A | V35A | V35A | V35A |
| | | | V36 | V36 | V36 | V36 | V36 |
| | VC31:1 | V42 | V37 | V37 | V37 | V37 | V37 |
| | V32 | V49 | V38 | V38 | V38 | V38 | V38 |
| | VC31:2 | V43 | V39 | V39 | V39 | V39 | V39 |
| | VC31:3 | V44 | V40 | V40 | V40 | V40 | V40 |
| | VC31:4 | V45 | V41 | V41 | V41 | V41 | V41 |
| | VC31:M5 | V46:M | V42:MO | V42:MO | V42:MO | V42:MO | V42:MO |
| | VC31:Y5 | V46:Y | V42:YR | V42:YR | V42:YR | V42:YR | V42:YR |
| | VC31:6 | V47 | V43 | V43 | V43 | V43 | V43 |
| | VC31:7 | V48 | V44 | V44 | V44 | V44 | V44 |
| | | | | | V45 | V45 | V45 |
| | | | V45 | V45 | V45A | V45A | V45A |
| | | | V46 | V46 | V46 | V46 | V46 |
| H4 | | | | | | | |
| H5 | H15 | H20 | | | | | |
| H6 | H16 | H21 | | | | | |
| | I2 | J2 | V47 | V47 | V47 | V47 | V47 |
| H7 | H17 | H22 | | | | | |
| | I3 | J3 | | | | | |
| A16 | A23 | A22 | V48 | V48 | V48 | V48 | V48 |
| | | | V48A | V48A | V48A | V48A | V48A |
| | | | V49 | V49 | V49 | V49 | V49 |
| V7 | V33 | V50 | V50 | V50 | V50 | V50 | V50 |
| V8 | V34 | V51 | V51 | V51 | V51 | V51 | V51 |
| V9 | V35 | V52 | V52 | V52 | V52 | V52 | V52 |
| V20 | V42 | V59 | | | | | |
| V12 | V38 | V55 | V56 | V56 | V56 | V56 | V56 |
| V14 | V40 | V57 | V58 | V58 | V58 | V58 | V58 |
| V16 | | | | | | | |
| V18 | | | | | | | |
| V22 | V44 | V61 | | | | | |
| | | V62 | | | | | |
| | | V63 | | | | | |
| | | | | | V62A:1-2 | V62A:1-2 | V62A:1-2 |
| | | | | | V62B:1-2 | V62B:1-2 | V62B:1-2 |
| | | | | | V62C:1-2 | V62C:1-2 | V62C:1-2 |
| | | | | | V62D:1-2 | V62D:1-2 | V62D:1-2 |
| | | | V63:HR | V63:HR | | | |
| | | | V63:MN | V63:MN | | | |
| | | | V63:AP | V63:AP | | | |
| | | A3 | A1 | A1 | A1 | A1 | A1 |
| | | | | | | | A2 |
| | | AA | A2A | A2A | | | |
| AA | AA | AB | A2B | A2B | | | |
| AB | AB | AC | A2C | A2C | | | |
| AC | AC | AD | A2D | A2D | | | |
| AD | AD | AE | A2E | A2E | | | |
| AE | AE | | | | | | |
| AF | AF | | | | | | |
| AHRBG | AHRBG | AHRBG | A3:HR | A3:HR | | | |
| AMNBG | AMNBG | AMNBG | A3:MN | A3:MN | | | |
| AAPBG | AAPBG | AAPBG | A3:AP | A3:AP | | | |
| A3 | A1 | A1 | A4 | A4 | A4 | A4 | A4 |
| | A2:M | A2:M | A5:MO | A5:MO | A5:MO | A5:MO | A5:MO |
| | A2:Y | A2:Y | A5:YR | A5:YR | A5:YR | A5:YR | A5:YR |
| | | A4 | | | | | |
| A2 | A4 | A5:M | A6:MO | A6:MO | A6:MO | A6:MO | A6:MO |
| A1:A-B | A3 | A5:Y | A6:YR | A6:YR | A6:YR | A6:YR | A6:YR |
| A4:A | A5:A | A6:A | A7A | A7A | A7A | A7A | A7A |
| A4:B | A5:B | A6:B | A7B | A7B | A7B | A7B | A7B |
| A4:C | A5:C | A6:C | A7C | A7C | A7C | A7C | A7C |
| | A5:D | A6:D | A7D | A7D | A7D | A7D | A7D |
| A4:D | A5:E | A6:E | A7E | A7E | A7E | A7E | A7E |
| A4:E | A5:F | A6:F | A7F | A7F | A7F | A7F | A7F |
| A4:F | A5:G | A6:G | A7G | A7G | A7G | A7G | A7G |
| A4:G | A5:H | A6:H | A7H | A7H | A7H | A7H | A7H |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| A4:H | A5:I | A6:I | A7I | A7I | A7I | A7I | A7I |
| A5 | A6 | A7 | A8 | A8 | A8 | A8 | A8 |
| A6 | A7 | A8 | A9 | A9 | A9 | A9 | A9 |
| A7 | A8 | A9 | A10 | A10 | A10 | A10 | A10 |
| | | | A11 | A11 | A11 | A11 | A11 |
| A8 | A9 | A10 | A12 | A12 | A12 | A12 | A12 |
| A9 | A10 | A11 | A13 | A13 | A13 | A13 | A13 |
| A10 | A11 | A12 | A14 | A14 | A14 | A14 | A14 |
| | A12 | A13 | A15 | A15 | A15 | A15 | A15 |
| | | A14 | A16 | A16 | A16 | A16 | A16 |
| A11 | A13 | A15 | | | | | |
| | | A16 | | | | | |
| A12 | A14 | A17 | | | | | |
| | | A18 | | | | | |
| A13 | A15 | A19 | | | | | |
| A14 | A16 | | | | | | |
| | A17 | | | | | | |
| | A18 | | | | | | |
| | A19 | | | | | | |
| | A20 | | | | | | |
| | | | A17 | A17 | A17 | A17 | A17 |
| | | | A18A-W | A18A-W | A18A-W | A18A-W | A18A-W |
| | | | A19 | A19 | A19 | A19 | A19 |
| A15 | A21 | A20 | | | | | |
| A17 | A24 | | | | | | |
| A18 | A25 | | | | | | |
| | | AHREN | A20:HR | A20:HR | | | |
| | | AMNEN | A20:MN | A20:MN | | | |
| | | AAPEN | A20:AP | A20:AP | | | |
| AMST | ASTA | ASTAT | ASTAT | ASTAT | | | |
| BA | BX | BX | B1 | B1 | B1 | B1 | B1 |
| | | BA | B2A | B2A | | | |
| BB | BA | BB | B2B | B2B | | | |
| BC | BB | BC | B2C | B2C | | | |
| BD | BC | BD | B2D | B2D | | | |
| BE | BD | BE | B2E | B2E | | | |
| BF | BE | | | | | | |
| BG | BF | | | | | | |
| | | BHRBG | B3:HR | B3:HR | | | |
| | | BMNBG | B3:MN | B3:MN | | | |
| | | BAPBG | B3:AP | B3:AP | | | |
| | | | B4 | B4 | B4 | B4 | B4 |
| B3:A-E | B8:A-E | B5:A-E | | | | | |
| B9 | B18 | B14 | B5 | B5 | B5 | B5 | B5 |
| B11 | B19 | B15 | B6 | B6 | B6 | B6 | B6 |
| B12 | B20 | B16 | B7 | B7 | B7 | B7 | B7 |
| | | | | | B7A | B7A | B7A |
| B13 | B21 | B17 | B8 | B8 | B8 | B8 | B8 |
| B15 | B23 | B19 | | | | | |
| B16:A | B24:A | B20:A | B9A | B9A | B9A | B9A | B9A |
| B16:B | B24:B | B20:B | B9B | B9B | B9B | B9B | B9B |
| B16:C | B24:C | B20:C | B9C | B9C | B9C | B9C | B9C |
| B16:D | B24:D | B20:D | B9D | B9D | B9D | B9D | B9D |
| B16:E | B24:E | B20:E | B9E | B9E | B9E | B9E | B9E |
| B16:F | B24:F | B20:F | B9F | B9F | B9F | B9F | B9F |
| B16:G | B24:G | B20:G | B9G | B9G | B9G | B9G | B9G |
| B16:H | B24:H | B20:H | B9H | B9H | B9H | B9H | B9H |
| B16:I | B24:I | B20:I | B9I | B9I | B9I | B9I | B9I |
| B16:J | B24:J | B20:J | B9J | B9J | B9J | B9J | B9J |
| B16:K | B24:K | B20:K | B9K | B9K | B9K | B9K | B9K |
| B16:L | B24:L | B20:L | B9L | B9L | B9L | B9L | B9L |
| B16:M | B24:M | B20:M | B9M | B9M | B9M | B9M | B9M |
| | B24:N | B20:N | B9N | B9N | B9N | B9N | B9N |
| B16:N | B24:O | B20:O | B9O | B9O | B9O | B9O | B9O |
| B16:O | B24:P | B20:P | B9P | B9P | B9P | B9P | B9P |
| B17 | B25 | B21 | B10 | B10 | B10 | B10 | B10 |
| B18 | B26 | B22 | B11 | B11 | B11 | B11 | B11 |
| B19 | B27 | B23 | B12 | B12 | B12 | B12 | B12 |
| B24 | B32 | B28 | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| B27:1-2 | B35:1-2 | B31:1-2 | B13 | B13 | B13 | B13 | B13 |
| B25:1-2 | B33:1-2 | B29:1-2 | B14:1-2 | B14:1-2 | B14:1-2 | B14:1-2 | B14:1-2 |
| B26:1-2 | B34:1-2 | B30:1-2 | B15:1-2 | B15:1-2 | B15:1-2 | B15:1-2 | B15:1-2 |
| B28:1-2 | B36:1-2 | B32:1-2 | B16:1-2 | B16:1-2 | B16:1-2 | B16:1-2 | B16:1-2 |
| B29:1-2 | B37:1-2 | B33:1-2 | B17:1-2 | B17:1-2 | B17:1-2 | B17:1-2 | B17:1-2 |
| | | | B18 | B18 | B18 | B18 | B18 |
| B20 | B28 | B24 | B19 | B19 | B19 | B19 | B19 |
| B21:1-2 | B29:1-2 | B25:1-2 | B20:1-2 | B20:1-2 | B20:1-2 | B20:1-2 | B20:1-2 |
| B22:1-2 | B30:1-2 | B26:1-2 | B20A:1-2 | B20A:1-2 | B20A:1-2 | B20A:1-2 | B20A:1-2 |
| B23:A1-2 | B31:1-2A | B27:A1-2 | | | | | |
| B23:B1-2 | B31:1-2B | B27:B1-2 | | | | | |
| B23:C1-2 | B31:1-2C | B27:C1-2 | | | | | |
| | B31:1-2D | B27:D1-2 | | | | | |
| B23:D1-2 | B31:1-2E | B27:E1-2 | | | | | |
| B23:E1-2 | B31:1-2F | B27:F1-2 | | | | | |
| B23:F1-2 | B31:1-2G | B27:G1-2 | | | | | |
| B23:G1-2 | B31:1-2H | B27:H1-2 | | | | | |
| | B31:1-2I | B27:I1-2 | | | | | |
| | B31:1-2J | B27:J1-2 | | | | | |
| B23:H1-2 | B31:1-2K | B27:K1-2 | | | | | |
| | B38 | B34 | B21 | B21 | B21 | B21 | B21 |
| | B39:1-5 | | | | | | |
| | | | B22 | B22 | B22 | B22 | B22 |
| | | B35 | B22A | B22A | B22A | B22A | B22A |
| | B2 | B2 | B23 | B23 | B23 | B23 | B23 |
| | B3 | B3 | B24 | B24 | B24 | B24 | B24 |
| | B4 | | | | | | |
| | B5 | | | | | | |
| | B6 | | | | | | |
| B2 | B1 | B1 | B25 | B25 | B25 | B25 | B25 |
| B10 | B7 | B4 | B26 | B26 | B26 | B26 | B26 |
| | B15 | B11 | B26A | B26A | B26A | B26A | B26A |
| B14 | B22 | B18 | B27 | B27 | B27 | B27 | B27 |
| B8 | B16 | B12 | B28 | B28 | B28 | B28 | B28 |
| | | | B29 | B29 | B29 | B29 | B29 |
| B7 | B13 | B10 | B30 | B30 | B30 | B30 | B30 |
| | B14 | | | | | | |
| B4 | B9 | B6 | B31 | B31 | B31 | B31 | B31 |
| B6 | B12 | B9 | B34:1-2 | B34:1-2 | B34:1-2 | B34:1-2 | B34:1-2 |
| | | | B35 | B35 | B35 | B35 | B35 |
| B1 | B17 | B13:A-B | B36 | B36 | B36 | B36 | B36 |
| B30 | B40 | B36 | B37 | B37 | B37 | B37 | B37 |
| B31 | B41 | B37 | B38 | B38 | B38 | B38 | B38 |
| BHREN | BHREN | BHREN | B39:HR | B39:HR | | | |
| BMNEN | BMNEN | BMNEN | B39:MN | B39:MN | | | |
| BAPEN | BAPEN | BAPEN | B39:AP | B39:AP | | | |
| BMST | BSTA | BSTAT | BSTAT | BSTAT | | | |
| | | CA | C1A | C1A | | | |
| CA | CA | CB | C1B | C1B | | | |
| CB | CB | CC | C1C | C1C | | | |
| CC | CC | CD | C1D | C1D | | | |
| CD | CD | CE | C1E | C1E | | | |
| CE | CE | | | | | | |
| CF | CF | | | | | | |
| CHRBG | CHRBG | CHRBG | C2:HR | C2:HR | | | |
| CMNBG | CMNBG | CMNBG | C2:MN | C2:MN | | | |
| CAPBG | CAPBG | CAPBG | C2:AP | C2:AP | | | |
| | | C1 | C3 | C3 | C3 | C3 | C3 |
| | | C2:M | C4 | C4 | C4 | C4 | C4 |
| | | C2:Y | | | | | |
| | | C3:A | C5A | C5A | C5A | C5A | C5A |
| | | C3:B | C5B | C5B | C5B | C5B | C5B |
| | | C4 | C6 | C6 | C6 | C6 | C6 |
| | | C5 | C6A | C6A | C6A | C6A | C6A |
| | | C6 | C7 | C7 | C7 | C7 | C7 |
| | | C11 | C8 | C8 | C8 | C8 | C8 |
| | | C7 | C9 | C9 | C9 | C9 | C9 |
| | | C8 | C10 | C10 | C10 | C10 | C10 |
| | | C9:M | C11 | C11 | C11 | C11 | C11 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | C9:Y | | | | | |
| | | C10:A | C12A | C12A | C12A | C12A | C12A |
| | | C10:B | C12B | C12B | C12B | C12B | C12B |
| | | C12 | C13 | C13 | C13 | C13 | C13 |
| | | C13 | C14 | C14 | C14 | C14 | C14 |
| | | C14 | C15 | C15 | C15 | C15 | C15 |
| | | C15 | C16 | C16 | C16 | C16 | C16 |
| | | C16 | C17 | C17 | C17 | C17 | C17 |
| | | C17 | | | | | |
| | | C18:M | C18 | C18 | C18 | C18 | C18 |
| | | C18:Y | | | | | |
| | | C19 | C19 | C19 | C19 | C19 | C19 |
| | | C20 | C20 | C20 | C20 | C20 | C20 |
| | | C21 | C21 | C21 | C21 | C21 | C21 |
| | | C22:A | C22A | C22A | C22A | C22A | C22A |
| | | C22:B | C22B | C22B | C22B | C22B | C22B |
| | | C23 | C23 | C23 | C23 | C23 | C23 |
| | | C24 | C24 | C24 | C24 | C24 | C24 |
| | | C25 | C25 | C25 | C25 | C25 | C25 |
| | | C26 | C26 | C26 | C26 | C26 | C26 |
| | | C27 | C27 | C27 | C27 | C27 | C27 |
| | | C28 | C28 | C28 | C28 | C28 | C28 |
| | | C29 | C29 | C29 | C29 | C29 | C29 |
| | | C30 | C30 | C30 | C30 | C30 | C30 |
| | | C31 | C31 | C31 | C31 | C31 | C31 |
| | | C32 | C32 | C32 | C32 | C32 | C32 |
| | | C33 | C33 | C33 | C33 | C33 | C33 |
| | | C34 | C34 | C34 | C34 | C34 | C34 |
| | | C35 | C35 | C35 | C35 | C35 | C35 |
| | | C36 | C36 | C36 | C36 | C36 | C36 |
| | | C37 | C37 | C37 | C37 | C37 | C37 |
| | | C38 | C38 | C38 | C38 | C38 | C38 |
| | | | C39 | C39 | C39 | C39 | C39 |
| | | | C40 | C40 | C40 | C40 | C40 |
| | | | C41 | C41 | C41 | C41 | C41 |
| | | | C42 | C42 | C42 | C42 | C42 |
| | | | C43 | C43 | C43 | C43 | C43 |
| | | | C44 | C44 | C44 | C44 | C44 |
| | C1 | C40 | C45 | C45 | C45 | C45 | C45 |
| C2 | | | | | | | |
| C35 | | C41 | C46 | C46 | C46 | C46 | C46 |
| C46 | C98 | C42, C43, C44, D44 | C47 | C47 | C47 | C47 | C47 |
| | | | C48 | C48 | C48 | C48 | C48 |
| C37 | C2 | C45 | C49 | C49 | C49 | C49 | C49 |
| | | C46 | | | | | |
| | C3 | C47 | C50 | C50 | C50 | C50 | C50 |
| | C4 | C48 | C51 | C51 | C51 | C51 | C51 |
| C4 | C5 | C49 | C52 | C52 | C52 | C52 | C52 |
| C3 | C6 | C50 | C53 | C53 | C53 | C53 | C53 |
| | C9:1 | C51:1 | C54:1 | C54:1 | C54:1 | C54:1 | C54:1 |
| C1 | C7:1 | | | | | | |
| | C8:1 | C52:1 | C55:1 | C55:1 | C55:1 | C55:1 | C55:1 |
| C6 | C10:1 | C53:1 | C56:1 | C56:1 | C56:1 | C56:1 | C56:1 |
| | C16:1 | C55:1 | C57:1 | C57:1 | C57:1 | C57:1 | C57:1 |
| | C9:2-5 | C51:2-5 | C54:2-5 | C54:2-5 | C54:2-5 | C54:2-5 | C54:2-5 |
| | C7:2-5 | | | | | | |
| | C8:2-5 | C52:2-5 | C55:2-5 | C55:2-5 | C55:2-5 | C55:2-5 | C55:2-5 |
| | C10:2-5 | C53:2-5 | C56:2-5 | C56:2-5 | C56:2-5 | C56:2-5 | C56:2-5 |
| | C11:2-4 | C54:2-4 | C57:2-4 | C57:2-4 | C57:2-4 | C57:2-4 | C57:2-4 |
| C7 | C12:1 | | | | | | |
| C8 | C13:1 | | | | | | |
| C9 | C14:1 | | | | | | |
| C10:A-I | C15:1A-I | | | | | | |
| C19 | | | | | | | |
| | | C56 | | | | | |
| C30 | C23 | | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | C58 | C58 | C58 | C58 | C58 | C58 |
| | C24 | C59 | C59 | C59 | C59 | C59 | C59 |
| | | C57 | C60 | C60 | C60 | C60 | C60 |
| | C17 | C60 | C61 | C61 | C61 | C61 | C61 |
| | C18 | C61 | C62 | C62 | C62 | C62 | C62 |
| | C19 | C62 | C63 | C63 | C63 | C63 | C63 |
| | C20 | C63 | | | | | |
| | C21:A-E1 | C64:A-E | | | | | |
| | C22 | C65 | | | | | |
| | | C66 | | | | | |
| | | C67 | C64 | C64 | C64 | C64 | C64 |
| | | C68 | C65 | C65 | C65 | C65 | C65 |
| C31* | C25 | C69 | C66 | C66 | C66 | C66 | C66 |
| | C116 | D63 | C67 | C67 | C67 | C67 | C67 |
| | C117 | D64 | C68 | C68 | C68 | C68 | C68 |
| C31* | C118 | D65 | C69 | C69 | C69 | C69 | C69 |
| C5 | C26 | C70 | C70 | C70 | C70 | C70 | C70 |
| | C45 | C72 | C71 | C71 | C71 | C71 | C71 |
| | | | C72 | C72 | C72 | C72 | C72 |
| | C27 | C71 | C73 | C73 | C73 | C73 | C73 |
| | C29:1 | C74:1 | C75:1 | C75:1 | C75:1 | C75:1 | C75:1 |
| | C30:1 | C75:1 | C76:1 | C76:1 | C76:1 | C76:1 | C76:1 |
| | C32:1 | C76:1 | C77:1 | C77:1 | C77:1 | C77:1 | C77:1 |
| | C33:1 | C77:1 | C78:1 | C78:1 | C78:1 | C78:1 | C78:1 |
| C21:1-5 | C29:2-6 | C74:2-6 | C75:2-6 | C75:2-6 | C75:2-6 | C75:2-6 | C75:2-6 |
| C22:1-5 | C30:2-6 | C75:2-6 | C76:2-6 | C76:2-6 | C76:2-6 | C76:2-6 | C76:2-6 |
| | C31:3-6 | | | | | | |
| C23:1-5 | C32:2-6 | C76:2-6 | C77:2-6 | C77:2-6 | C77:2-6 | C77:2-6 | C77:2-6 |
| C24:1-5 | C33:2-6 | C77:2-6 | C78:2-6 | C78:2-6 | C78:2-6 | C78:2-6 | C78:2-6 |
| C25:1-2 | C34:1-2 | C78:1-2 | C79:1-2 | C79:1-2 | C79:1-2 | C79:1-2 | C79:1-2 |
| C26:1-2 | | | | | | | |
| | C35:1-2 | C79:1-2 | C80:1-2 | C80:1-2 | C80:1-2 | C80:1-2 | C80:1-2 |
| C27:1-2 | C36:1-2 | C80:1-2 | C81:1-2 | C81:1-2 | C81:1-2 | C81:1-2 | C81:1-2 |
| | C37:1-2 | | | | | | |
| C28:1-2 | C38:1-2 | C81:1-2 | C82:1-2 | C82:1-2 | C82:1-2 | C82:1-2 | C82:1-2 |
| C29:1 | C39:1 | C82:1 | C83 | C83 | C83 | C83 | C83 |
| | | C83 | C84 | C84 | C84 | C84 | C84 |
| | | C84 | C85 | C85 | C85 | C85 | C85 |
| | | C85 | C86 | C86 | C86 | C86 | C86 |
| | C40 | C86 | C87 | C87 | C87 | C87 | C87 |
| | C41 | C87 | C88 | C88 | C88 | C88 | C88 |
| | C42 | C88 | C89 | C89 | C89 | C89 | C89 |
| | C43 | C89 | C90 | C90 | C90 | C90 | C90 |
| | C46 | | | | | | |
| | C47:A-G | | | | | | |
| | C48 | C90 | C91 | C91 | C91 | C91 | C91 |
| | C49 | C91 | C92 | C92 | C92 | C92 | C92 |
| | C50 | C92 | C93 | C93 | C93 | C93 | C93 |
| | | CHREN | C94:HR | C94:HR | | | |
| | | CMNEN | C94:MN | C94:MN | | | |
| | | CAPEN | C94:AP | C94:AP | | | |
| | | CSTAT | CSTAT | CSTAT | | | |
| | | DA | D1A | D1A | | | |
| | | DB | D1B | D1B | | | |
| | | DC | D1C | D1C | | | |
| | | DD | D1D | D1D | | | |
| | | DE | D1E | D1E | | | |
| | | DHRBG | D2:HR | D2:HR | | | |
| | | DMNBG | D2:MN | D2:MN | | | |
| | | DAPBG | D2:AP | D2:AP | | | |
| | C51 | D1:A-D | D3 | D3 | D3 | D3 | D3 |
| | C52 | | | | | | |
| | C53 | D2 | D4 | D4 | D4 | D4 | D4 |
| | | | D5 | D5 | | | |
| | | | D6 | D6 | | | |
| | | | D7A | D7A | D7A | D7A | D7A |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | | D7B | D7B | D7B | D7B | D7B |
| | | | | | D7C | D7C | D7C |
| | | | D8 | D8 | D8 | D8 | D8 |
| | C55:B | | D9A | D9A | D9A | D9A | D9A |
| | C55:A | | D9B | D9B | D9B | D9B | D9B |
| | | | D9C | D9C | D9C | D9C | D9C |
| | | | D9D | D9D | D9D | D9D | D9D |
| | C55:C | | D9E | D9E | D9E | D9E | D9E |
| | | | D9F | D9F | D9F | D9F | D9F |
| C11 | C56 | D5 | D10 | D10 | D10 | D10 | D10 |
| | C57:A | | | | | | |
| | C57:B | D6:A | D11A | D11A | D11A | D11A | D11A |
| | C57:C | D6:B | D11B | D11B | D11B | D11B | D11B |
| | C57:D | D6:C | D11C | D11C | D11C | D11C | D11C |
| | | D6:D | D11D | D11D | D11D | D11D | D11D |
| | C57:E | D6:E | D11E | D11E | D11E | D11E | D11E |
| | C58 | D7 | D12 | D12 | D12 | D12 | D12 |
| C12 | C59 | D8 | D13 | D13 | D13 | D13 | D13 |
| | C60:A | | | | | | |
| | C60:B | D9:A | D14A | D14A | D14A | D14A | D14A |
| | C60:C | D9:B | D14B | D14B | D14B | D14B | D14B |
| | C60:D | D9:C | D14C | D14C | D14C | D14C | D14C |
| | | D9:D | D14D | D14D | D14D | D14D | D14D |
| | C60:E | D9:E | D14E | D14E | D14E | D14E | D14E |
| C13 | C61 | D10 | D15 | D15 | D15 | D15 | D15 |
| | C62:A | | | | | | |
| | C62:B | D11:A | D16A | D16A | D16A | D16A | D16A |
| | C62:C | D11:B | D16B | D16B | D16B | D16B | D16B |
| | C62:D | D11:C | D16C | D16C | D16C | D16C | D16C |
| | | D11:D | D16D | D16D | D16D | D16D | D16D |
| | C62:E | D11:E | D16E | D16E | D16E | D16E | D16E |
| C14 | C63 | D12 | D17 | D17 | D17 | D17 | D17 |
| C15 | C64 | | | | | | |
| C16 | | | | | | | |
| | | D13 | D18 | D18 | D18 | D18 | D18 |
| | C65:A-E | | | | | | |
| C17 | C66 | D14 | D19 | D19 | D19 | D19 | D19 |
| | C67:A | | | | | | |
| | C67:B | D15:A | D20A | D20A | D20A | D20A | D20A |
| | C67:C | D15:B | D20B | D20B | D20B | D20B | D20B |
| | C67:D | D15:C | D20C | D20C | D20C | D20C | D20C |
| | | D15:D | D20D | D20D | D20D | D20D | D20D |
| | C67:E | D15:E | D20E | D20E | D20E | D20E | D20E |
| | C68 | D16 | D21 | D21 | D21 | D21 | D21 |
| | C69:A | | | | | | |
| | C69:B | D17:A | D22A | D22A | D22A | D22A | D22A |
| | C69:C | D17:B | D22B | D22B | D22B | D22B | D22B |
| | C69:D | D17:C | D22C | D22C | D22C | D22C | D22C |
| | | D17:D | D22D | D22D | D22D | D22D | D22D |
| | C69:E | D17:E | D22E | D22E | D22E | D22E | D22E |
| C18 | C70 | D18 | D23 | D23 | D23 | D23 | D23 |
| | C71:A | | | | | | |
| | C71:B | D19:A | D24A | D24A | D24A | D24A | D24A |
| | C71:C | D19:B | D24B | D24B | D24B | D24B | D24B |
| | C71:D | D19:C | D24C | D24C | D24C | D24C | D24C |
| | | D19:D | D24D | D24D | D24D | D24D | D24D |
| | C71:E | D19:E | D24E | D24E | D24E | D24E | D24E |
| | C72 | D20 | D25 | D25 | D25 | D25 | D25 |
| C33 | C74 | D22 | D26 | D26 | D26 | D26 | D26 |
| C32 | C73 | D21 | D27 | D27 | D27 | D27 | D27 |
| C34 | C75 | D23 | D28 | D28 | D28 | D28 | D28 |
| | C76 | D24 | D29 | D29 | D29 | D29 | D29 |
| | C78 | D26 | D30 | D30 | D30 | D30 | D30 |
| | C77 | D25 | D31 | D31 | D31 | D31 | D31 |
| | C79 | D27 | D32 | D32 | D32 | D32 | D32 |
| | C80 | | | | | | |
| | C81 | D28 | D33 | D33 | D33 | D33 | D33 |
| C36 | | | | | | | |
| C38 | C82 | D29 | D34 | D34 | D34 | D34 | D34 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | C83 | D30:A-B | D35A-B | D35A-B | D35A-B | D35A-B | D35A-B |
| | C84 | D31 | D36 | D36 | D36 | D36 | D36 |
| C39 | C85 | D32 | D37 | D37 | D37 | D37 | D37 |
| | C86 | D33:A-B | D38A-B | D38A-B | D38A-B | D38A-B | D38A-B |
| C40 | C87 | D34 | D39 | D39 | D39 | D39 | D39 |
| | C88 | D35 | D40 | D40 | D40 | D40 | D40 |
| C41 | C89 | D36 | D41 | D41 | D41 | D41 | D41 |
| | C90 | D37 | D42 | D42 | D42 | D42 | D42 |
| C42 | C91 | D38 | D43 | D43 | D43 | D43 | D43 |
| | | | D43A | D43A | D43A | D43A | D43A |
| | C92 | D39 | D44 | D44 | D44 | D44 | D44 |
| | C93 | | | | | | |
| C43 | | | | | | | |
| C44 | | | | | | | |
| C45 | C94 | D40 | D45 | D45 | D45 | D45 | D45 |
| | C95 | D41 | D46 | D46 | D46 | D46 | D46 |
| | C96 | D42 | D47 | D47 | D47 | D47 | D47 |
| | C97 | D43 | D48 | D48 | D48 | D48 | D48 |
| | C99 | D45 | D49 | D49 | D49 | D49 | D49 |
| | | D46 | D50 | D50 | D50 | D50 | D50 |
| C47 | C100 | D47 | D51 | D51 | D51 | D51 | D51 |
| | C101 | D48 | D52 | D52 | D52 | D52 | D52 |
| C48 | C102 | D49 | D53 | D53 | D53 | D53 | D53 |
| C49 | C103 | D50 | D54 | D54 | D54 | D54 | D54 |
| C50 | C104 | D51 | D55 | D55 | D55 | D55 | D55 |
| C51 | C105 | D52 | D56 | D56 | D56 | D56 | D56 |
| C52 | | | | | | | |
| C53 | | | | | | | |
| | C106 | D53 | D57 | D57 | D57 | D57 | D57 |
| C54 | C107 | D54 | D58 | D58 | D58 | D58 | D58 |
| | C108 | D55 | D59 | D59 | D59 | D59 | D59 |
| C55 | C109 | D56 | D60 | D60 | D60 | D60 | D60 |
| C56 | C110 | D57 | D61 | D61 | D61 | D61 | D61 |
| | C111 | D58 | D62 | D62 | D62 | D62 | D62 |
| | C112 | D59 | D63 | D63 | D63 | D63 | D63 |
| | C113 | D60 | | | | | |
| | C114 | D61 | D64 | D64 | D64 | D64 | D64 |
| | C115 | D62 | D65 | D65 | D65 | D65 | D65 |
| | | | D66 | D66 | D66 | D66 | D66 |
| | C119 | D66 | D67 | D67 | D67 | D67 | D67 |
| | C120 | D67 | D68 | D68 | D68 | D68 | D68 |
| | C121 | D68 | D69 | D69 | D69 | D69 | D69 |
| | C122 | D69 | | | | | |
| | C123:A-E | D70:A-E | | | | | |
| | C124 | D71 | | | | | |
| | | D72 | D70 | D70 | D70 | D70 | D70 |
| | C125 | | D71 | D71 | D71 | D71 | D71 |
| | C126 | | D72 | D72 | D72 | D72 | D72 |
| | C127 | | D73 | D73 | D73 | D73 | D73 |
| | C128 | | D74 | D74 | D74 | D74 | D74 |
| | C129 | | D75 | D75 | D75 | D75 | D75 |
| | C130 | | D76 | D76 | D76 | D76 | D76 |
| | C131:A-F | | D77A-F | D77A-F | D77A-F | D77A-F | D77A-F |
| | C132 | | D78A-F | D78A-F | D78A-F | D78A-F | D78A-F |
| | C133 | | D79 | D79 | D79 | D79 | D79 |
| | C134 | | D80 | D80 | D80 | D80 | D80 |
| | C135 | | D81 | D81 | D81 | D81 | D81 |
| C57 | C136 | | | | | | |
| C58 | C137 | D73 | | | | | |
| | | D74 | | | | | |
| C59 | C138 | D75 | | | | | |
| C60 | C139 | D76 | | | | | |
| C61 | C140 | D77 | D82 | D82 | D82 | D82 | D82 |
| C62:A | C141:C | D78:A | D83A | D83A | D83A | D83A | D83A |
| C62:B | C141:A | | | | | | |
| C62:C | C141:B | | | | | | |
| C62:D | C141:D | D78:B | D83B | D83B | D83B | D83B | D83B |
| | C141:E | D78:C | D83C | D83C | D83C | D83C | D83C |
| C62:E | C141:F | D78:D | D83D | D83D | D83D | D83D | D83D |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| C62:F | C141:G | D78:E | D83E | D83E | D83E | D83E | D83E |
| C62:G | C141:H | D78:F | D83F | D83F | D83F | D83F | D83F |
| | C141:I | D78:G | D83G | D83G | D83G | D83G | D83G |
| | C141:J | | D83H | D83H | D83H | D83H | D83H |
| C62:H | C141:K | D78:H | | | | | |
| | | | D84:HR | D84:HR | | | |
| | | | D84:MN | D84:MN | | | |
| | | | D84:AP | D84:AP | | | |
| CMST | CSTA | DSTAT | DSTAT | DSTAT | | | |
| | | EA | E1A | E1A | | | |
| DA | DA | EB | E1B | E1B | | | |
| DB | DB | EC | E1C | E1C | | | |
| DC | DC | ED | E1D | E1D | | | |
| DD | DD | EE | E1E | E1E | | | |
| DE | DE | | | | | | |
| DF | DF | | | | | | |
| | | | E2:HR | E2:HR | | | |
| | | | E2:MN | E2:MN | | | |
| | | | E2:AP | E2:AP | | | |
| D19 | D35 | E20 | E3 | E3 | E3 | E3 | E3 |
| D20 | D36 | E21 | E3A | E3A | E3A | E3A | E3A |
| | | E22 | E4 | E4 | E4 | E4 | E4 |
| | D37 | E23 | E4A | E4A | E4A | E4A | E4A |
| D21:A-G | D38:A-G | E24:A-G | E5A-G | E5A-G | E5A-G | E5A-G | E5A-G |
| D22:A-E | D39:A-E | | | | | | |
| D10 | D13 | E1 | E6 | E6 | E6 | E6 | E6 |
| D12 | D15 | E2 | E7 | E7 | E7 | E7 | E7 |
| | | | E8 | E8 | E8 | E8 | E8 |
| D11:A | D14:A | E3 | E9 | E9 | E9 | E9 | E9 |
| D11:B | D14:B | E4:A | E10A | E10A | E10A | E10A | E10A |
| D11:C | D14:C | E4:B | E10B | E10B | E10B | E10B | E10B |
| D11:D | D14:D | E4:C | E10C | E10C | E10C | E10C | E10C |
| D11:E | D14:E | E4:D | E10D | E10D | E10D | E10D | E10D |
| D11:F | D14:F } | E4:E | E10E | E10E | E10E | E10E | E10E |
| D11:G | D14:G } | | | | | | |
| D11:H | D14A | | | | | | |
| | D16:1-5 | | | | | | |
| D13B:1-6 | { D19:1-5 } | E7 | E13 | E13 | E13 | E13 | E13 |
| | { D30 } | | | | | | |
| | D31 | | | | | | |
| D14:1-6 | D20:1-5 | E8 | E14 | E14 | E14 | E14 | E14 |
| D14A:1-6 | { D21:1-5 } | E9 | E15 | E15 | E15 | E15 | E15 |
| | { D32 } | | | | | | |
| | D33 | | | | | | |
| D15:1-6 | D22:1-5 | E10 | E16 | E16 | E16 | E16 | E16 |
| | | E11 | | | | | |
| D16:1-6 | D23:1-5 | E12 | E17 | E17 | E17 | E17 | E17 |
| D17:1-6 | { D24:1-5 } | E13 | E18 | E18 | E18 | E18 | E18 |
| | { D34 } | | | | | | |
| D18:1-6 | D25:1-5 | E14 | E19 | E19 | E19 | E19 | E19 |
| | | E17:A-C | E20A-C | E20A-C | E20A-C | E20A-C | E20A-C |
| | | E18 | E21 | E21 | E21 | E21 | E21 |
| | | E19:A-C | E22A-C | E22A-C | E22A-C | E22A-C | E22A-C |
| | | E15 | E23 | E23 | E23 | E23 | E23 |
| D18A:1-6 | D26:1-5 | E16 | E24 | E24 | E24 | E24 | E24 |
| | D27 | | | | | | |
| D23:1-5 | D40:1-5 | E25:1-5 | E25:1-5 | E25:1-5 | E25:1-5 | E25:1-5 | E25:1-5 |
| D24:1-5 | D41:1-5 | E26:1-5 | E26:1-5 | E26:1-5 | E26:1-5 | E26:1-5 | E26:1-5 |
| D25:1-5 | D42:1-5 | E27:1-5 | E27:1-5 | E27:1-5 | E27:1-5 | E27:1-5 | E27:1-5 |
| D25A:1-5 | D43:1-5 | E28:1-5 | E28:1-5 | E28:1-5 | E28:1-5 | E28:1-5 | E28:1-5 |
| D23:6 | D44:6 | E29:6 | E25:6 | E25:6 | E25:6 | E25:6 | E25:6 |
| D24:6 | D45:6 | E30:6 | E26:6 | E26:6 | E26:6 | E26:6 | E26:6 |
| D25:6 | D46:6 | E31:6 | E27:6 | E27:6 | E27:6 | E27:6 | E27:6 |
| D25A:6 | D47:6 | E32:6 | E28:6 | E28:6 | E28:6 | E28:6 | E28:6 |
| D23:8 | D44:8 | E29:8 | E25:7 | E25:7 | E25:7 | E25:7 | E25:7 |
| D24:8 | D45:8 | E30:8 | E26:7 | E26:7 | E26:7 | E26:7 | E26:7 |
| D25:8 | D46:8 | E31:8 | E27:7 | E27:7 | E27:7 | E27:7 | E27:7 |
| D25A:8 | D47:8 | E32:8 | E28:7 | E28:7 | E28:7 | E28:7 | E28:7 |
| D23:7 | D44:7 | E29:7 | E25:8 | E25:8 | E25:8 | E25:8 | E25:8 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| D24:7 | D45:7 | E30:7 | E26:8 | E26:8 | E26:8 | E26:8 | E26:8 |
| D25:7 | D46:7 | E31:7 | E27:8 | E27:8 | E27:8 | E27:8 | E27:8 |
| D25A:7 | D47:7 | E32:7 | E28:8 | E28:8 | E28:8 | E28:8 | E28:8 |
| D23:9 | D44:9 | E29:9 | E25:9 | E25:9 | E25:9 | E25:9 | E25:9 |
| D24:9 | D45:9 | E30:9 | E26:9 | E26:9 | E26:9 | E26:9 | E26:9 |
| D25:9 | D46:9 | E31:9 | E27:9 | E27:9 | E27:9 | E27:9 | E27:9 |
| D25A:9 | D47:9 | E32:9 | E28:9 | E28:9 | E28:9 | E28:9 | E28:9 |
| D23:10 | D44:10 | E29:10 | E25:10 | E25:10 | E25:10 | E25:10 | E25:10 |
| D24:10 | D45:10 | E30:10 | E26:10 | E26:10 | E26:10 | E26:10 | E26:10 |
| D25:10 | D46:10 | E31:10 | E27:10 | E27:10 | E27:10 | E27:10 | E27:10 |
| D25A:10 | D47:10 | E32:10 | E28:10 | E28:10 | E28:10 | E28:10 | E28:10 |
| D23:12 | D48:11 | E33:11 | E25:11 | E25:11 | E25:11 | E25:11 | E25:11 |
| D24:12 | D49:11 | E34:11 | E26:11 | E26:11 | E26:11 | E26:11 | E26:11 |
| D25:12 | D50:11 | E35:11 | E27:11 | E27:11 | E27:11 | E27:11 | E27:11 |
| D25A:12 | D51:11 | E36:11 | E28:11 | E28:11 | E28:11 | E28:11 | E28:11 |
| D23:13 | D48:12 | E33:12 | E25:12 | E25:12 | E25:12 | E25:12 | E25:12 |
| D24:13 | D49:12 | E34:12 | E26:12 | E26:12 | E26:12 | E26:12 | E26:12 |
| D25:13 | D50:12 | E35:12 | E27:12 | E27:12 | E27:12 | E27:12 | E27:12 |
| D25A:13 | D51:12 | E36:12 | E28:12 | E28:12 | E28:12 | E28:12 | E28:12 |
| D23:14 | D48:13 | E33:13 | E25:13 | E25:13 | E25:13 | E25:13 | E25:13 |
| D24:14 | D49:13 | E34:13 | E26:13 | E26:13 | E26:13 | E26:13 | E26:13 |
| D25:14 | D50:13 | E35:13 | E27:13 | E27:13 | E27:13 | E27:13 | E27:13 |
| D25A:14 | D51:13 | E36:13 | E28:13 | E28:13 | E28:13 | E28:13 | E28:13 |
| | | E33:14 | E25:14 | E25:14 | E25:14 | E25:14 | E25:14 |
| | | E34:14 | E26:14 | E26:14 | E26:14 | E26:14 | E26:14 |
| | | E35:14 | E27:14 | E27:14 | E27:14 | E27:14 | E27:14 |
| | | E36:14 | E28:14 | E28:14 | E28:14 | E28:14 | E28:14 |
| | | | E29 | E29 | E29 | E29 | E29 |
| | | | E30 | E30 | E30 | E30 | E30 |
| D26 | D52 | E37 | E31 | E31 | E31 | E31 | E31 |
| D27:1 | D53:1 | E38:1 | E32:1 | E32:1 | E32:1 | E32:1 | E32:1 |
| D28:1 | D54:1 | E39:1 | E33:1 | E33:1 | E33:1 | E33:1 | E33:1 |
| D30:A1 | D56:1A | E41:A1 | E34A:1 | E34A:1 | E34A:1 | E34A:1 | E34A:1 |
| D30:B1 | D56:1B | E41:B1 | E34B:1 | E34B:1 | E34B:1 | E34B:1 | E34B:1 |
| D30:C1 | D56:1C | E41:C1 | E34C:1 | E34C:1 | E34C:1 | E34C:1 | E34C:1 |
| D30:D1 | D56:1D | E41:D1 | E34D:1 | E34D:1 | E34D:1 | E34D:1 | E34D:1 |
| D29:A1 | D55:1A | E40:A1 | { E35A:1 | E35A:1 | E35A:1 | E35A:1 | E35A:1 |
| | | | { E35B:1 | E35B:1 | E35B:1 | E35B:1 | E35B:1 |
| D29:B1 | D55:1B | E40:B1 | E35C:1 | E35C:1 | E35C:1 | E35C:1 | E35C:1 |
| D29:C1 | D55:1C | E40:C1 | E35D:1 | E35D:1 | E35D:1 | E35D:1 | E35D:1 |
| D29A:1 | | | | | | | |
| D27:2 | D53:2 | E38:2 | E32:2 | E32:2 | E32:2 | E32:2 | E32:2 |
| D28:2 | D54:2 | E39:2 | E33:2 | E33:2 | E33:2 | E33:2 | E33:2 |
| D30:A2 | D56:2A | E41:A2 | E34A:2 | E34A:2 | E34A:2 | E34A:2 | E34A:2 |
| D30:B2 | D56:2B | E41:B2 | E34B:2 | E34B:2 | E34B:2 | E34B:2 | E34B:2 |
| D30:C2 | D56:2C | E41:C2 | E34C:2 | E34C:2 | E34C:2 | E34C:2 | E34C:2 |
| D30:D2 | D56:2D | E41:D2 | E34D:2 | E34D:2 | E34D:2 | E34D:2 | E34D:2 |
| D29:A2 | D55:2A | E40:A2 | { E35A:2 | E35A:2 | E35A:2 | E35A:2 | E35A:2 |
| | | | { E35B:2 | E35B:2 | E35B:2 | E35B:2 | E35B:2 |
| D29:B2 | D55:2B | E40:B2 | E35C:2 | E35C:2 | E35C:2 | E35C:2 | E35C:2 |
| D29:C2 | D55:2C | E40:C2 | E35D:2 | E35D:2 | E35D:2 | E35D:2 | E35D:2 |
| D27:3 | D53:3 | E38:3 | E32:3 | E32:3 | E32:3 | E32:3 | E32:3 |
| D28:3 | D54:3 | E39:3 | E33:3 | E33:3 | E33:3 | E33:3 | E33:3 |
| D29:A3 | D55:3A | E40:A3 | { E35A:3 | E35A:3 | E35A:3 | E35A:3 | E35A:3 |
| | | | { E35B:3 | E35B:3 | E35B:3 | E35B:3 | E35B:3 |
| D29:B3 | D55:3B | E40:B3 | E35C:3 | E35C:3 | E35C:3 | E35C:3 | E35C:3 |
| D29:C3 | D55:3C | E40:C3 | E35D:3 | E35D:3 | E35D:3 | E35D:3 | E35D:3 |
| D27:4 | | | | | | | |
| D28:4 | | | | | | | |
| D29:A4 | | | | | | | |
| D29:B4 | | | | | | | |
| D29:C4 | | | | | | | |
| D27:5A | D53:4A | E38:A4 | E32A:4 | E32A:4 | E32A:4 | E32A:4 | E32A:4 |
| D27:5B | D53:4B | E38:B4 | E32B:4 | E32B:4 | E32B:4 | E32B:4 | E32B:4 |
| D28:5 | D54:4 | E39:4 | E33:4 | E33:4 | E33:4 | E33:4 | E33:4 |
| D30:B5 | D56:4B | E41:B4 | E34A:4 | E34A:4 | E34A:4 | E34A:4 | E34A:4 |
| D30:A5 | D56:4A | E41:A4 | E34B:4 | E34B:4 | E34B:4 | E34B:4 | E34B:4 |
| D29:A5 | D55:4A | E40:A4 | { E35A:4 | E35A:4 | E35A:4 | E35A:4 | E35A:4 |
| | | | { E35B:4 | E35B:4 | E35B:4 | E35B:4 | E35B:4 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| D29:B5 | D55:4B | E40:B4 | E35C:4 | E35C:4 | E35C:4 | E35C:4 | E35C:4 |
| D29:C5 | D55:4C | E40:C4 | E35D:4 | E35D:4 | E35D:4 | E35D:4 | E35D:4 |
| D23:11 | D53:5 | E38:5 | E32:5 | E32:5 | E32:5 | E32:5 | E32:5 |
| | D54:5 | E39:5 | E33:5 | E33:5 | E33:5 | E33:5 | E33:5 |
| D24:11 | D55:5A | E40:A5 | E35A:5 | E35A:5 | E35A:5 | E35A:5 | E35A:5 |
| | | | E35B:5 | E35B:5 | E35B:5 | E35B:5 | E35B:5 |
| D25:11 | | | | | | | |
| D25A:11 | | | | | | | |
| D31:1 | D57:1 | E42:1 | E32:6 | E32:6 | E32:6 | E32:6 | E32:6 |
| D32:1 | D58:1 | E43:1 | E33:6 | E33:6 | E33:6 | E33:6 | E33:6 |
| D33:A1 | D59:1A | E44:A1 | E35A:6 | E35A:6 | E35A:6 | E35A:6 | E35A:6 |
| | | | E35B:6 | E35B:6 | E35B:6 | E35B:6 | E35B:6 |
| D33:B1 | D59:1B | E44:B1 | E35C:6 | E35C:6 | E35C:6 | E35C:6 | E35C:6 |
| D33:C1 | D59:1C | E44:C1 | E35D:6 | E35D:6 | E35D:6 | E35D:6 | E35D:6 |
| D31:2 | D57:2 | E42:2 | E32:7 | E32:7 | E32:7 | E32:7 | E32:7 |
| D32:2 | D58:2 | E43:2 | E33:7 | E33:7 | E33:7 | E33:7 | E33:7 |
| D33:A2 | D59:2 | E44:A2 | E35A:7 | E35A:7 | E35A:7 | E35A:7 | E35A:7 |
| | | | E35B:7 | E35B:7 | E35B:7 | E35B:7 | E35B:7 |
| | D60 | E45 | E36 | E36 | E36 | E36 | E36 |
| | D62:1-5A | E46:A1-5 | E37A:1-5 | E37A:1-5 | E37A:1-3 | E37A:1-3 | E37A:1-3 |
| | D62:1-5B | E46:B1-5 | E37B:1-5 | E37B:1-5 | E37B:1-3 | E37B:1-3 | E37B:1-3 |
| | D62:1-5C | E46:C1-5 | E37C:1-5 | E37C:1-5 | E37C:1-3 | E37C:1-3 | E37C:1-3 |
| | D61:1-5A | E47:A1-5 | E38A:1-5 | E38A:1-5 | E38A:1-3 | E38A:1-3 | E38A:1-3 |
| | D61:1-5B | E47:B1-5 | E38B:1-5 | E38B:1-5 | E38B:1-3 | E38B:1-3 | E38B:1-3 |
| | D61:1-5C | E47:C1-5 | E38C:1-5 | E38C:1-5 | E38C:1-3 | E38C:1-3 | E38C:1-3 |
| | D61:1-5D | E47:D1-5 | E38D:1-5 | E38D:1-5 | E38D:1-3 | E38D:1-3 | E38D:1-3 |
| | D61:1-5E | E47:E1-5 | E38E:1-5 | E38E:1-5 | E38E:1-3 | E38E:1-3 | E38E:1-3 |
| | D61:1-5F | E47:F1-5 | E38F:1-5 | E38F:1-5 | E38F:1-3 | E38F:1-3 | E38F:1-3 |
| | D61:1-5G | E47:G1-5 | E38G:1-5 | E38G:1-5 | E38G:1-3 | E38G:1-3 | E38G:1-3 |
| | D63:1-5A | E48:A1-5 | E39A:1-5 | E39A:1-5 | E39A:1-3 | E39A:1-3 | E39A:1-3 |
| | D63:1-5B | E48:B1-5 | E39B:1-5 | E39B:1-5 | E39B:1-3 | E39B:1-3 | E39B:1-3 |
| | D63:1-5C | E48:C1-5 | E39C:1-5 | E39C:1-5 | E39C:1-3 | E39C:1-3 | E39C:1-3 |
| D34 | D64 | E49 | | | | | |
| D35 | D65 | E50 | | | | | |
| D36 | D66 | E51 | E40 | E40 | E40 | E40 | E40 |
| D37:B | D67:C | E52:B | E41A | E41A | E41A | E41A | E41A |
| D37:A | D67:A | E52:A | E41B | E41B | E41B | E41B | E41B |
| | D67:B | | | | | | |
| D37:C | D67:D | E52:C | E41C | E41C | E41C | E41C | E41C |
| D37:D | D67:E | E52:D | E41D | E41D | E41D | E41D | E41D |
| | D67:F | E52:E | E41E | E41E | E41E | E41E | E41E |
| | | | E42:HR | E42:HR | | | |
| | | | E42:MN | E42:MN | | | |
| | | | E42:AP | E42:AP | | | |
| DMST | DSTA | ESTAT | ESTAT | ESTAT | | | |
| | | FA | F1A | F1A | | | |
| EA | EA | FB | F1B | F1B | | | |
| EB | EB | FC | F1C | F1C | | | |
| EC | EC | FD | F1D | F1D | | | |
| ED | ED | FE | F1E | F1E | | | |
| EE | EE | | | | | | |
| EF | EF | | | | | | |
| | | | F2:HR | F2:HR | | | |
| | | | F2:MN | F2:MN | | | |
| | | | F2:AP | F2:AP | | | |
| | E4 | F3 | F4 | F4 | F4 | F4 | F4 |
| E2:1-15 | E5:1-15 | F4:1-15 | F5:1-15 | F5:1-15 | F5:1-15 | F5:1-15 | F5:1-15 |
| E2A:1-15 | | | | | | | |
| E3:1-15 | E6:1-15 | F5:1-15 | F6:1-15 | F6:1-15 | F6:1-15 | F6:1-15 | F6:1-15 |
| E4A:1-15 | E7:1-15 | F7:A1-15 | | | | | |
| E4B:1-15 | E8:2-15 | F6:2-15 | | | | | |
| | E9:A1-15 | F7:B1-15 | | | | | |
| | E9:B1-15 | F7:C1-15 | | | | | |
| | E9:C1-15 | F7:D1-15 | | | | | |
| | E9:D1-15 | F7:E1-15 | | | | | |
| | E10:1-15 | | | | | | |
| E4C:1-15 | E11:1-15 | F8:1-15 | F7:1-15 | F7:1-15 | F7:1-15 | F7:1-15 | F7:1-15 |
| | | | F8:1-15 | F8:1-15 | F8:1-15 | F8:1-15 | F8:1-15 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| E5:1-15 | E12:1-15 | F9:1-15 | F8A:1-15 | F8A:1-15 | F8A:1-15 | F8A:1-15 | F8A:1-15 |
| | | | F9:1-15 | F9:1-15 | F9:1-15 | F9:1-15 | F9:1-15 |
| | | | F10:1-15 | F10:1-15 | F10:1-15 | F10:1-15 | F10:1-15 |
| | | | F11:1-15 | F11:1-15 | F11:1-15 | F11:1-15 | F11:1-15 |
| | | | F12A:1-15 | F12A:1-15 | F12A:1-15 | F12A:1-15 | F12A:1-15 |
| | | | F12B:1-15 | F12B:1-15 | F12B:1-15 | F12B:1-15 | F12B:1-15 |
| | | | F12C:1-15 | F12C:1-15 | F12C:1-15 | F12C:1-15 | F12C:1-15 |
| | | | F12D:1-15 | F12D:1-15 | F12D:1-15 | F12D:1-15 | F12D:1-15 |
| | | | F12E:1-15 | F12E:1-15 | F12E:1-15 | F12E:1-15 | F12E:1-15 |
| | | | F12F:1-15 | F12F:1-15 | F12F:1-15 | F12F:1-15 | F12F:1-15 |
| | | | F12G:1-15 | F12G:1-15 | F12G:1-15 | F12G:1-15 | F12G:1-15 |
| | | | F12H:1-15 | F12H:1-15 | F12H:1-15 | F12H:1-15 | F12H:1-15 |
| | | | F12I:1-15 | F12I:1-15 | F12I:1-15 | F12I:1-15 | F12I:1-15 |
| E6:1-15 | E13:1-15 | F10:1-15 | F13:1-15 | F13:1-15 | F13:1-15 | F13:1-15 | F13:1-15 |
| E7 | E14 | | | | | | |
| E8 | E15 | | | | | | |
| E9 | E16 | F11 | F14 | F14 | F14 | F14 | F14 |
| E10 | E17 | F12 | F15 | F15 | F15 | F15 | F15 |
| | | F13 | | | | | |
| | | F14 | | | | | |
| | | F15 | F16 | F16 | F16 | F16 | F16 |
| | | | F17 | F17 | F17 | F17 | F17 |
| | | | F17A | F17A | F17A | F17A | F17A |
| | | | F18 | F18 | F18 | F18 | F18 |
| | | | F18A | F18A | F18A | F18A | F18A |
| | | | F19 | F19 | F19 | F19 | F19 |
| | | | F20 | F20 | F20 | F20 | F20 |
| | | | F20A | F20A | F20A | F20A | F20A |
| | | | F21 | F21 | F21 | F21 | F21 |
| | | | F22 | F22 | F22 | F22 | F22 |
| | | | F23 | F23 | F23 | F23 | F23 |
| | | | F23A | F23A | F23A | F23A | F23A |
| | | | F24 | F24 | F24 | F24 | F24 |
| | | | F24A | F24A | F24A | F24A | F24A |
| | | | F25 | F25 | F25 | F25 | F25 |
| | | | F26 | F26 | F26 | F26 | F26 |
| | | | F26A | F26A | F26A | F26A | F26A |
| | | | F27 | F27 | F27 | F27 | F27 |
| | | | F28 | F28 | F28 | F28 | F28 |
| | | | F29 | F29 | F29 | F29 | F29 |
| | | | F29A | F29A | F29A | F29A | F29A |
| | | | F30 | F30 | F30 | F30 | F30 |
| | | | F30A | F30A | F30A | F30A | F30A |
| | | | F31 | F31 | F31 | F31 | F31 |
| | | | F32 | F32 | F32 | F32 | F32 |
| | | | F32A | F32A | F32A | F32A | F32A |
| | | | F33 | F33 | F33 | F33 | F33 |
| | | | F34 | F34 | F34 | F34 | F34 |
| D1 | D1 | F16 | | | | | |
| D2 | D2 | | | | | | |
| | | F17 | | | | | |
| | D3 | F18 | | | | | |
| | D4 | F19 | | | | | |
| | D5 | | | | | | |
| | | F20 | | | | | |
| D3 | D6 | F21 | | | | | |
| D4 | D7 | F22 | | | | | |
| D5 | D8 | | | | | | |
| | | F23 | | | | | |
| D6 | D9 | F24 | | | | | |
| D7 | D10 | F25 | | | | | |
| D8 | D11 | | | | | | |
| D9 | D12 | | | | | | |
| | | F26 | | | | | |
| E11 | E18 | F27 | | | | | |
| E12 | E19 | F28 | | | | | |
| E13 | E20 | F29 | F35 | F35 | F35 | F35 | F35 |
| E14:A | E21:A | F30:A | F36A | F36A | F36A | F36A | F36A |
| E14:B | E21:B | F30:B | F36B | F36B | F36B | F36B | F36B |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| E14:C | E21:C | F30:D | | | | | |
| E14:D | E21:D | F30:C | F36C | F36C | F36C | F36C | F36C |
| | | | F37:HR | F37:HR | | | |
| | | | F37:MN | F37:MN | | | |
| | | | F37:AP | F37:AP | | | |
| EMST | ESTA | FSTAT | FSTAT | FSTAT | | | |
| | | GA | G1A | G1A | | | |
| FA | FA | GB | G1B | G1B | | | |
| FB | FB | GC | G1C | G1C | | | |
| FC | FC | GD | G1D | G1D | | | |
| FD | FD | GE | G1E | G1E | | | |
| FE | FE | | | | | | |
| FF | FF | | | | | | |
| FHRBG | | | G2:HR | G2:HR | | | |
| FMNBG | | | G2:MN | G2:MN | | | |
| FAPBG | | | G2:AP | G2:AP | | | |
| | | G1 | G3 | G3 | G3 | G3 | G3 |
| | | G2 | | | | | |
| F1 | F1 | G3 | G3A | G3A | G4 | G4 | G4 |
| | F2 | G7 | G4 | G4 | G9 | G9 | G9 |
| | | | G5 | G5 | G5 | G5 | G5 |
| | | G4 | G6 | G6 | | | |
| | | G5 | G7 | G7 | | | |
| | | G6 | G8 | G8 | G6 | G6 | G6 |
| | | | G9A | G9A | G8A | G8A | G8A |
| | | | G9B:MO | G9B:MO | G8B:MO | G8B:MO | G8B:MO |
| | | | G9B:DA | G9B:DA | G8B:DA | G8B:DA | G8B:DA |
| | | | G9B:YR | G9B:YR | G8B:YR | G8B:YR | G8B:YR |
| | | G8 | G10 | G10 | G7 | G7 | G7 |
| | | G9 | G11 | G11 | G11 | G11 | G11 |
| | | G10 | G12 | G12 | G12 | G12 | G12 |
| F2 | F3 | G11 | G13 | G13 | G13 | G13 | G13 |
| F3 | F4 | G12 | G13A | G13A | G13A | G13A | G13A |
| F4:M | F5:A | G13:M | G14:MO | G14:MO | G14:MO | G14:MO | G14:MO |
| F4:Y | F5:B | G13:Y | G14:YR | G14:YR | G14:YR | G14:YR | G14:YR |
| F5 | F6 | G14 | G15 | G15 | G15 | G15 | G15 |
| | F7 | G15 | G16 | G16 | G16 | G16 | G16 |
| F6 | F8 | G16 | G17 | G17 | G17 | G17 | G17 |
| F7 | F9 | G17 | G18 | G18 | G18 | G18 | G18 |
| F8 | F10 | G18 | G19 | G19 | G19 | G19 | G19 |
| | F11 | G19 | G20 | G20 | G20 | G20 | G20 |
| | F12 | G20 | G20A | G20A | G20A | G20A | G20A |
| | | | G21A | G21A | G21A | G21A | G21A |
| | | | G21B:MO | G21B:MO | G21B:MO | G21B:MO | G21B:MO |
| | | | G21B:DA | G21B:DA | G21B:DA | G21B:DA | G21B:DA |
| | | | G21B:YR | G21B:YR | G21B:YR | G21B:YR | G21B:YR |
| F9 | F13 | G21 | G22 | G22 | G22 | G22 | G22 |
| F10 | | | | | | | |
| F11 | | | | | | | |
| | | G23:1-3 | G23:1-3 | G23:1-3 | G23:1-3 | G23:1-3 | G23:1-3 |
| F13:1-3 | F15:1-3 | G24:1-3 | G24:1-3 | G24:1-3 | G24:1-3 | G24:1-3 | G24:1-3 |
| | F16:1-3 | G25:1-3 | G25:1-3 | G25:1-3 | G25:1-3 | G25:1-3 | G25:1-3 |
| | F17:1-3 | | | | | | |
| | F18:1-3 | G26:1-3 | G26:1-3 | G26:1-3 | G26:1-3 | G26:1-3 | G26:1-3 |
| F15:1-3 | F21:1-3 | G27:1-3 | G27:1-3 | G27:1-3 | G27:1-3 | G27:1-3 | G27:1-3 |
| F16:M1-3 | F22:1-3A | G28:1-3 | G28:1-3 | G28:1-3 | G28:1-3 | G28:1-3 | G28:1-3 |
| F16:Y1-3 | F22:1-3B | | | | | | |
| F17:1-3 | F23:1-3 | G29:1-3 | G29:1-3 | G29:1-3 | G29:1-3 | G29:1-3 | G29:1-3 |
| F12:M1-3 | F19:A1-3 | G30:M1-3 | G30M:1-3 | G30M:1-3 | G30M:1-3 | G30M:1-3 | G30M:1-3 |
| F12:Y1-3 | F19:B1-3 | G30:Y1-3 | G30Y:1-3 | G30Y:1-3 | G30Y:1-3 | G30Y:1-3 | G30Y:1-3 |
| F14:1-3 | F20:1-3 | G31:1-3 | G31:1-3 | G31:1-3 | G31:1-3 | G31:1-3 | G31:1-3 |
| F18:1-3 | F24:1-3 | G32:1-3 | G32:1-3 | G32:1-3 | G32:1-3 | G32:1-3 | G32:1-3 |
| F19:M1-3 | F25:1-3A | G33:1-3 | G33:1-3 | G33:1-3 | G33:1-3 | G33:1-3 | G33:1-3 |
| F19:Y1-3 | F25:1-3B | | | | | | |
| F20:A1-3 | F26:1-3A | G34:A1-3 | G34A:1-3 | G34A:1-3 | G34A:1-3 | G34A:1-3 | G34A:1-3 |
| F20:B1-3 | F26:1-3B | G34:B1-3 | G34B:1-3 | G34B:1-3 | G34B:1-3 | G34B:1-3 | G34B:1-3 |
| F21:1-3 | F27:1-3 | G35:1-3 | G35:1-3 | G35:1-3 | G35:1-3 | G35:1-3 | G35:1-3 |
| | F28:1-3 | G36:1-3 | G36:1-3 | G36:1-3 | G36:1-3 | G36:1-3 | G36:1-3 |
| | F29:1-3A | G37:1-3 | G37:1-3 | G37:1-3 | G37:1-3 | G37:1-3 | G37:1-3 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | F29:1-3B | | | | | | |
| | F30:1-3 | G38:1-3 | G38:1-3 | G38:1-3 | G38:1-3 | G38:1-3 | G38:1-3 |
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| F25:B1-3 | F33:1-3B | G41:B1-3 | G41B:1-3 | G41B:1-3 | G41B:1-3 | G41B:1-3 | G41B:1-3 |
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| F27:1-3 | F36:1-3 | G44:1-3 | G44:1-3 | G44:1-3 | G44:1-3 | G44:1-3 | G44:1-3 |
| F28:1-3 | F37:1-3 | G45:1-3 | G45:1-3 | G45:1-3 | G45:1-3 | G45:1-3 | G45:1-3 |
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| F31 | F41 | | | | | | |
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| | F44:1-2B | G51:B1-2 | G51B:1-2 | G51B:1-2 | G51B:1-2 | G51B:1-2 | G51B:1-2 |
| F34:B1-2 | F44:1-2C | G51:C1-2 | G51C:1-2 | G51C:1-2 | G51C:1-2 | G51C:1-2 | G51C:1-2 |
| | F44:1-2D | G51:D1-2 | G51D:1-2 | G51D:1-2 | G51D:1-2 | G51D:1-2 | G51D:1-2 |
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| F36:1-2 | F46:1-2 | G53:1-2 | G53:1-2 | G53:1-2 | G53:1-2 | G53:1-2 | G53:1-2 |
| | F47:1-2 | G54:1-2 | G54:1-2 | G54:1-2 | G54:1-2 | G54:1-2 | G54:1-2 |
| | F48:1-2 | G55:1-2 | G55:1-2 | G55:1-2 | G55:1-2 | G55:1-2 | G55:1-2 |
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| F37 | F51 | G58 | G56 | G56 | G56 | G56 | G56 |
| F38 | F52:A | G59:A | G57A | G57A | G57A | G57A | G57A |
| | F52:B | G59:B | G57B | G57B | G57B | G57B | G57B |
| | F53 | G60 | G58 | G58 | G58 | G58 | G58 |
| | F54:A | G61 | G59 | G59 | G59 | G59 | G59 |
| F39 | F54:B | G61A:A | G59A | G59A | G59A | G59A | G59A |
| | F54:C | G61A:B | G59B | G59B | G59B | G59B | G59B |
| | | G62 | | | | | |
| | | G63:A-B | | | | | |
| | | G64 | | | | | |
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| F42:B1-3 | F57:1-3B | G67:B1-2 | G62B:1-2 | G62B:1-2 | G62B:1-2 | G62B:1-2 | G62B:1-2 |
| F42:C1-3 | F57:1-3C | G67:C1-2 | G62C:1-2 | G62C:1-2 | G62C:1-2 | G62C:1-2 | G62C:1-2 |
| F42:D1-3 | F57:1-3D | G67:D1-2 | G62D:1-2 | G62D:1-2 | G62D:1-2 | G62D:1-2 | G62D:1-2 |
| F42:E1-3 | F57:1-3E | G67:E1-2 | G62E:1-2 | G62E:1-2 | G62E:1-2 | G62E:1-2 | G62E:1-2 |
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| | F60:1-3 | | | | | | |
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| | F62 | G71 | G66 | G66 | G66 | G66 | G66 |
| | F63 | | | | | | |
| | | G72:A | G67A | G67A | G67A | G67A | G67A |
| | | G72:B | G67B | G67B | G67B | G67B | G67B |
| | | G72:C | G67C | G67C | G67C | G67C | G67C |
| | | G72:D | G67D | G67D | G67D | G67D | G67D |
| | | G72:E | G67E | G67E | G67E | G67E | G67E |
| | | G72:F | G67F | G67F | G67F | G67F | G67F |

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| | | G72:G | G67H | G67H | G67H | G67H | G67H |
| | | G73 | G68 | G68 | G68 | G68 | G68 |
| | | G74 | G69 | G69 | G69 | G69 | G69 |
| | | G75 | G70 | G70 | G70 | G70 | G70 |
| | F64 | G76 | G71 | G71 | G71 | G71 | G71 |
| | F65 | G77 | G72 | G72 | G72 | G72 | G72 |
| | F66 | G78 | G73 | G73 | G73 | G73 | G73 |
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| F46 | F68 | G80 | G74 | G74 | G74 | G74 | G74 |
| F47 | F69 | G81 | | | | | |
| F48 | F70 | G82 | G75 | G75 | G75 | G75 | G75 |
| F49:A-H | F71:A-H | G83:A-H | | | | | |
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| F52:1-3 | F74:1-3 | G86:1-3 | G78:1-3 | G78:1-3 | G78:1-3 | G78:1-3 | G78:1-3 |
| F53:1-3 | F75:1-3 | G87:1-3 | G79:1-3 | G79:1-3 | G79:1-3 | G79:1-3 | G79:1-3 |
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| F55 | F77 | G89 | | | | | |
| F56 | F78 | G90 | | | | | |
| F57 | F79 | G91 | G81 | G81 | G81 | G81 | G81 |
| F58:A | F80:A | G92:A | G82A | G82A | G82A | G82A | G82A |
| F58:B | | | | | | | |
| F58:C | F80:B | G92:B | G82B | G82B | G82B | G82B | G82B |
| | F80:D | G92:D | G82C | G82C | G82C | G82C | G82C |
| F58:D | F80:C | G92:C | G82D | G82D | G82D | G82D | G82D |
| F58:E | F80:E | G92:E | G82E | G82E | G82E | G82E | G82E |
| F58:F | F80:F | G92:F | G82F | G82F | G82F | G82F | G82F |
| | F80:G | G92:G | G82G | G82G | G82G | G82G | G82G |
| F58:G | F80:H | G92:H | G82H | G82H | G82H | G82H | G82H |
| FHREN | FHREN | GHREN | G83:HR | G83:HR | | | |
| FMNEN | FMNEN | GMNEN | G83:MN | G83:MN | | | |
| FAPEN | FAPEN | GAPEN | G83:AP | G83:AP | | | |
| FMST | FSTA | GSTAT | GSTAT | GSTAT | | | |
| | | HX | | | | | |
| | | HA | H1A | H1A | | | |
| HA | HA | HB | H1B | H1B | | | |
| HB | HB | HC | H1C | H1C | | | |
| HC | HC | HD | H1D | H1D | | | |
| HD | HD | HE | H1E | H1E | | | |
| HE | HE | | | | | | |
| HF | HF | | | | | | |
| HHRBG | HHRBG | HHRBG | H2:HR | H2:HR | | | |
| HMNBG | HMNBG | HMNBG | H2:MN | H2:MN | | | |
| HAPBG | HAPBG | HAPBG | H2:AP | H2:AP | | | |
| | | H1 | | | | | |
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| | | H3:B | H4B | H4B | H4B | H4B | H4B |
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| | H30:B | H6:B | H6B | H6B | H6B | H6B | H6B |
| | H30:C | H6:C | H6C | H6C | H6C | H6C | H6C |
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| H18:D | H30:H | H6:H | H6H | H6H | H6H | H6H | H6H |
| H18:E | H30:I | H6:I | H6I | H6I | H6I | H6I | H6I |
| H18:F | H30:J | H6:J | H6J | H6J | H6J | H6J | H6J |
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| | H2 | H8 | | | | | |
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| | H9 | H15 | | | | | |

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| | H10 | H16 | | | | | |
| | H7 | H13 | H9 | H9 | H9 | H9 | H9 |
| | H13 | H18 | H10 | H10 | H10 | H10 | H10 |
| | H14 | H19 | H11 | H11 | H11 | H11 | H11 |
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| H2D | H8:B | | | | | | |
| H2Y | H8:C | H14:Y | H12:YR | H12:YR | H12:YR | H12:YR | H12:YR |
| | H11 | | | | | | |
| H3 | H12 | H17 | H13 | H13 | H13 | H13 | H13 |
| I2:A | I12:A | J13:A | H14A | H14A | H14A | H14A | H14A |
| | I12:B | J13:B | H14B | H14B | H14B | H14B | H14B |
| I2:B | I12:C | J13:C | H14C | H14C | H14C | H14C | H14C |
| I2:C | I12:D | J13:D | H14D | H14D | H14D | H14D | H14D |
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| | I12:F | J13:F | H14F | H14F | H14F | H14F | H14F |
| I2:E | I12:G | J13:G | H14G | H14G | H14G | H14G | H14G |
| I2:F | I12:H | J13:H | H14H | H14H | H14H | H14H | H14H |
| I2:G | I12:I | J13:I | H14I | H14I | H14I | H14I | H14I |
| I2:H | I12:J | J13:J | H14J | H14J | H14J | H14J | H14J |
| I2:I | I12:K | J13:K | H14K | H14K | H14K | H14K | H14K |
| I2:J | I12:L | J13:L | H14L | H14L | H14L | H14L | H14L |
| | I12:M | J13:M | H14M | H14M | H14M | H14M | H14M |
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| | | | H15 | H15 | H15 | H15 | H15 |
| | H18 | H23 | H16 | H16 | H16 | H16 | H16 |
| | I4 | J4 | | | | | |
| | | H24 | H17 | H17 | H17 | H17 | H17 |
| | H19 | H25 | H18 | H18 | H18 | H18 | H18 |
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| | I5 | J5 | | | | | |
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| | I9 | J6 | | | | | |
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| H20 | H32 | H30 | H24 | H24 | H24 | H24 | H24 |
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| H26 | H38 | H33 | | | | | |
| | | H34 | H25 | H25 | H25 | H25 | H25 |
| | | H35:A | H26A | H26A | H26A | H26A | H26A |
| H27 | H39 | H35:B | H26B | H26B | H26B | H26B | H26B |
| | | H36 | | | | | |
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| H29 | H41 | | | | | | |
| H30 | H42 | | | | | | |
| H31 | H43 | | | | | | |
| | | | H27A-L | H27A-L | H27A-L | H27A-L | H27A-L |
| H32:A | H44:A | | H28A | H28A | H28A | H28A | H28A |
| H32:B | H44:B | H37:A | H28B | H28B | H28B | H28B | H28B |
| H32:C | H44:C | H37:B | H28C | H28C | H28C | H28C | H28C |
| H32:D | H44:D | H37:C | H28D | H28D | H28D | H28D | H28D |
| H32:E | H44:E | H37:D | H28E | H28E | H28E | H28E | H28E |
| H32:F | H44:F | H37:E | H28F | H28F | H28F | H28F | H28F |
| H32:G | H44:G | H37:F | H28G | H28G | H28G | H28G | H28G |
| H32:H | H44:H | H37:G | H28H | H28H | H28H | H28H | H28H |
| H32:I | H44:I | H37:H | H28I | H28I | H28I | H28I | H28I |
| H32:J | H44:J | H37:I | H28J | H28J | H28J | H28J | H28J |
| H32:K | H44:K | H37:J | H28K | H28K | H28K | H28K | H28K |
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| | { I6 | | | | | | |
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| | H50:B | H39:C | | | | | |
| H38:B | H50:C | H39:D | | | | | |
| H38:C | H50:D | H39:E | | | | | |
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| H38:E | H50:F | H39:G | | | | | |
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| H40:A | H52:A | H41:A | | | | | |
| H40:B | H52:B | H41:B | | | | | |
| H40:C | H52:C | H41:C | | | | | |
| H40:D | H52:D | H41:D | | | | | |
| H40:E | H52:E | | | | | | |
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| H40:H | H52:H | H41:F | | | | | |
| H40:I | H52:I | H41:G | | | | | |
| H40:J | H52:J | | | | | | |
| H40:K | H52:K | H41:H | | | | | |
| H40:L | H52:L | H41:I | | | | | |
| H40:M | H52:M | | | | | | |
| | H52:N | | | | | | |
| H40:N | H52:O | | | | | | |
| H40:O | H52:P | | | | | | |
| H40:P | H52:Q | H41:J | | | | | |
| H41 | H53 | H42 | H30 | H30 | H30 | H30 | H30 |
| HHREN | HHREN | HHREN | H31:HR | H31:HR | | | |
| HMNEN | HMNEN | HMNEN | H31:MN | H31:MN | | | |
| HAPEN | HAPEN | HAPEN | H31:AP | H31:AP | | | |
| HMST | HSTA | HSTAT | HSTAT | HSTAT | | | |
| GA | GX | IX | I1 | I1 | I1 | I1 | I1 |
| | | IA | I2A | I2A | | | |
| GB | GA | IB | I2B | I2B | | | |
| GC | GB | IC | I2C | I2C | | | |
| GD | GC | ID | I2D | I2D | | | |
| GE1 | GD | IE | I2E | I2E | | | |
| GF | GE | | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| GG | GF | | | | | | |
| GHRBG | GHRBG | IHRBG | I3:HR | I3:HR | | | |
| GMNBG | GMNBG | IMNBG | I3:MN | I3:MN | | | |
| GAPBG | GAPBG | IAPBG | I3:AP | I3:AP | | | |
| G1 | G1 | I1 | I4 | I4 | I4 | I4 | I4 |
| | | | I5 | I5 | I5 | I5 | I5 |
| G2 | G2 | I2 | | | | | |
| | G3 | I3 | I6 | I6 | I6 | I6 | I6 |
| G3 | G4 | I4 | | | | | |
| G4 | G5 | I5 | I7 | I7 | I7 | I7 | I7 |
| | G6 | | | | | | |
| G5:A | G7 | I6 | | | | | |
| G5:B | | | | | | | |
| G6 | G8 | I7 | | | | | |
| G7 | | | | | | | |
| G8:A | G9 | I8 | | | | | |
| G8:B | | | | | | | |
| G9:A | G11 | I9* | | | | | |
| G9:B | | | | | | | |
| G10:A | G10 | I9* | | | | | |
| G10:B | | | | | | | |
| G11 | G12 | I10 | | | | | |
| G12 | G13 | I11 | I8 | I8 | I8 | I8 | I8 |
| G13 | G14 | I12 | | | | | |
| G14 | G15 | I13 | | | | | |
| G15:A-B | G16:A-B | I14:A-B | | | | | |
| G16 | G17 | | | | | | |
| G17 | G18 | | | | | | |
| G18 | G19 | | | | | | |
| | | | I9 | I9 | I9 | I9 | I9 |
| | | | I10A:1-4 | I10A:1-4 | I10A:1-4 | I10A:1-4 | I10A:1-4 |
| | | | I10B:1-4 | I10B:1-4 | I10B:1-4 | I10B:1-4 | I10B:1-4 |
| | | | I10C:1-4 | I10C:1-4 | I10C:1-4 | I10C:1-4 | I10C:1-4 |
| G19 | G20 | I15 | I11 | I11 | I11 | I11 | I11 |
| G21 | G22 | I16 | | | | | |
| G22 | G23 | I17 | | | | | |
| G20 | G21 | I18 | I12 | I12 | I12 | I12 | I12 |
| G23:A-H | G24:A-H | I19:A-H | | | | | |
| GHREN | GHREN | IHREN | I13:HR | I13:HR | | | |
| GMNEN | GMNEN | IMNEN | I13:MN | I13:MN | | | |
| GAPEN | GAPEN | IAPEN | I13:AP | I13:AP | | | |
| GMST | GSTA | ISTAT | ISTAT | ISTAT | | | |
| | | JA | J1A | J1A | | | |
| IA | IA | JB | J1B | J1B | | | |
| IB | IB | JC | J1C | J1C | | | |
| IC | IC | JD | J1D | J1D | | | |
| ID | ID | JE | J1E | J1E | | | |
| IE | IE | | | | | | |
| IF | IF | | | | | | |
| IHRBG | IHRBG | JHRBG | J2:HR | J2:HR | | | |
| IMNBG | IMNBG | JMNBG | J2:MN | J2:MN | | | |
| IAPBG | IAPBG | JAPBG | J2:AP | J2:AP | | | |
| I1 | | | J3 | J3 | J3 | J3 | J3 |
| | I1 | J1 | | | | | |
| | | J8 | | | | | |
| | I11 | J9 | | | | | |
| | | J10 | | | | | |
| | | J11 | | | | | |
| | | J12 | | | | | |
| I3 | I13 | J14 | J4 | J4 | J4 | J4 | J4 |
| I4 | I14 | J15 | J5 | J5 | J5 | J5 | J5 |
| I5 | I15 | J16 | J6 | J6 | J6 | J6 | J6 |
| I5A | I16 | J17 | J7 | J7 | J7 | J7 | J7 |
| I5B:A | I17:A | J18:A | J8A | J8A | J8A | J8A | J8A |
| I5B:B | I17:B | J18:B | J8B | J8B | J8B | J8B | J8B |
| I5B:C | I17:C | J18:C | J8C | J8C | J8C | J8C | J8C |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| I5B:D | I17:D | J18:D | J8D | J8D | J8D | J8D | J8D |
| | I17:E | J18:E | J8E | J8E | J8E | J8E | J8E |
| I5B:E | I17:F | J18:F | J8F | J8F | J8F | J8F | J8F |
| I5B:F | I17:G | J18:G | J8G | J8G | J8G | J8G | J8G |
| I5B:G | I17:H | J18:H | J8H | J8H | J8H | J8H | J8H |
| I6 | I18 | J19 | | | | | |
| I7 | I19 | J20 | | | | | |
| I8 | I20 | J21 | J9 | J9 | J9 | J9 | J9 |
| I9:A-H | I21:A-H | J22:A-I | J10 | J10 | J10 | J10 | J10 |
| I10 | I22 | J23 | J11 | J11 | J11 | J11 | J11 |
| | | | J12A | J12A | | | |
| | | | J12B | J12B | | | |
| | | | J12C | J12C | | | |
| | | | J12D | J12D | | | |
| | I23:1A | J24:A | | | | | |
| | I23:1B | J24:B | | | | | |
| | I23:1C | J24:C | | | | | |
| I11:K | I23:1D | J24:D | | | | | |
| I11:A | I23:2A | J24:E | | | | | |
| I11:B | I23:2B | J24:F | | | | | |
| I11:C | I23:2C | J24:G | | | | | |
| I11:D | I23:2D | J24:H | | | | | |
| | I23:2E | J24:I | | | | | |
| I11:E | I23:3A | J24:J | | | | | |
| I11:F | I23:3B | J24:K | | | | | |
| I11:G | I23:3C | J24:L | | | | | |
| I11:H | I23:3D | J24:M | | | | | |
| | I23:3E | J24:N | | | | | |
| I11:I | I23:4A | J24:O | | | | | |
| I11:J | I23:4B | J24:P | | | | | |
| | I23:4C | J24:Q | | | | | |
| | I23:4D | J24:R | | | | | |
| | I23:4E | J24:S | | | | | |
| | I23:5A | J24:T | | | | | |
| | I23:5B | J24:U | | | | | |
| | I23:5C | J24:V | | | | | |
| | I23:5D | J24:W | | | | | |
| | I23:5E | J24:X | | | | | |
| I11:L | I23:8A | J24:Y | | | | | |
| I12 | I24 | J25 | | | | | |
| I13:A | I25:A | J26 | | | | | |
| I13:B-D | I25:B1-4 | | | | | | |
| I14 | I26 | J27 | | | | | |
| I15:A | I27:A | | | | | | |
| I15:B | I27:B | | | | | | |
| | I27:C | | | | | | |
| I15:C | I27:D | | | | | | |
| I15:D | I27:E | | | | | | |
| I15:E | I27:F | | | | | | |
| I16 | I28 | J28 | | | | | |
| I17 | I29 | J29 | | | | | |
| I18:A | I30:B | J30:B | | | | | |
| I18:B | I30:A | J30:A | | | | | |
| I19:A | I31:A | J31:A | | | | | |
| I19:B | I31:B | J31:B | | | | | |
| I19:C | I31:C | J31:C | | | | | |
| I19:D | I31:D | J31:D | | | | | |
| I19:E | I31:E | J31:E | | | | | |
| I19:F | I31:F | J31:F | | | | | |
| I19:G | I31:G | J31:G | | | | | |
| I19:H | I31:H | J31:H | | | | | |
| I19:I | I31:I | J31:I | | | | | |
| | I31:J | J31:J | | | | | |
| I19:J | I31:K | J31:K | | | | | |
| I20:A-L | | | | | | | |
| I21 | I32 | J32 | | | | | |
| I21A | I33 | J33 | J13A | J13A | J13A | J13A | J13A |
| | | | J13B | J13B | J13B | J13B | J13B |
| I22 | I34 | J34 | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| I23 | I35 | | | | | | |
| I24 | I36 | | | | | | |
| I25 | I37 | J35 | | | | | |
| I28:A | I40:A | J38:A | J14A | J14A | J14A | J14A | J14A |
| I28:B | I40:B | J38:B | J14B | J14B | J14B | J14B | J14B |
| I28:C | I40:C | J38:C | J14C | J14C | J14C | J14C | J14C |
| | | | J14D | J14D | J14D | J14D | J14D |
| I26 | I38 | J36 | J15 | J15 | J15 | J15 | J15 |
| I27 | I39 | J37 | | | | | |
| I29 | I41 | J39 | J16 | J16 | J16 | J16 | J16 |
| | I42 | J40 | J17 | J17 | J17 | J17 | J17 |
| | I43 | J41 | J18 | J18 | J18 | J18 | J18 |
| | | | J19 | J19 | J19 | J19 | J19 |
| I30 | I44 | J42 | J20 | J20 | J20 | J20 | J20 |
| | | | J21A | J21A | J21:A | J21:A | J21:A |
| I31:A | I45:B | J43:B | J21B | J21B | J21:B | J21:B | J21:B |
| I31:B | I45:C | J43:C | | | | | |
| I31:C | I45:D | J43:D | | | | | |
| I31:D | I45:E | J43:E | | | | | |
| I31:E | I45:F | J43:F | | | | | |
| I31:F | I45:G | J43:G | | | | | |
| I31:G | I45:H | J43:H | | | | | |
| | I45:I | J43:I | | | | | |
| I31:H | I45:J | J43:J | | | | | |
| I31:I | I45:K | J43:K | | | | | |
| I31:K* | I45:M* | J43:M* | J21C | J21C | J21:C | J21:C | J21:C |
| | | | J21D | J21D | J21:D | J21:D | J21:D |
| | I45:N | J43:N | | | | | |
| I31:L* | I45:O* | J43:O* | J21E | J21E | J21:E | J21:E | J21:E |
| I31:J* | I45:L* | J43:L* | J21F | J21F | J21:F | J21:F | J21:F |
| | I45:P* | J43:P* | J21G | J21G | J21:G | J21:G | J21:G |
| I31:M* | I45:Q* | J43:Q* | J21H | J21H | J21:H | J21:H | J21:H |
| | I45:A | J43:A | J22A | J22A | J22:A | J22:A | J22:A |
| I31:K* | I45:M* | J43:M* | J22B | J22B | J22:B | J22:B | J22:B |
| | | | J22C | J22C | J22:C | J22:C | J22:C |
| I31:L* | I45:O* | J43:O* | J22D | J22D | J22:D | J22:D | J22:D |
| I31:J* | I45:L* | J43:L* | J22E | J22E | J22:E | J22:E | J22:E |
| | I45:P* | J43:P* | J22F | J22F | J22:F | J22:F | J22:F |
| I31:M* | I45:Q* | J43:Q* | J22G | J22G | J22:G | J22:G | J22:G |
| I31A | I46 | J44 | J23 | J23 | J23 | J23 | J23 |
| I32 | I47 | J45 | J24 | J24 | J24 | J24 | J24 |
| I33 | I48 | J46 | J25 | J25 | J25 | J25 | J25 |
| I34 | I49 | J47 | J26 | J26 | J26 | J26 | J26 |
| I35:A | I50:A | J48:A | J27A | J27A | J27A | J27A | J27A |
| I35:B | I50:B | J48:B | J27B | J27B | J27B | J27B | J27B |
| I35:C | I50:C | J48:C | J27C | J27C | J27C | J27C | J27C |
| I35:D | I50:D | J48:D | J27D | J27D | J27D | J27D | J27D |
| I35:E | I50:E | J48:E | J27E | J27E | J27E | J27E | J27E |
| I35:F | I50:F | J48:F | J27F | J27F | J27F | J27F | J27F |
| | I50:G | J48:G | J27G | J27G | J27G | J27G | J27G |
| I35:G | I50:H | J48:H | J27H | J27H | J27H | J27H | J27H |
| I36:A | I51:A | J49:A | J28A | J28A | J28A | J28A | J28A |
| I36:B | I51:B | J49:B | J28B | J28B | J28B | J28B | J28B |
| I36:C | I51:C | J49:C | J28C | J28C | J28C | J28C | J28C |
| I36:D | I51:D | J49:D | J28D | J28D | J28D | J28D | J28D |
| I36:E | I51:E | J49:E | J28E | J28E | J28E | J28E | J28E |
| I36:F | I51:F | J49:F | J28F | J28F | J28F | J28F | J28F |
| | I51:G | J49:G | J28G | J28G | J28G | J28G | J28G |
| | I51:H | J49:H | J28H | J28H | J28H | J28H | J28H |
| I36:G | I51:I | J49:I | J28I | J28I | J28I | J28I | J28I |
| | | JHREN | J29:HR | J29:HR | | | |
| | | JMNEN | J29:MN | J29:MN | | | |
| | | JAPEN | J29:AP | J29:AP | | | |
| | ISTA | JSTAT | JSTAT | JSTAT | | | |
| | | KX | K1 | K1 | K1 | K1 | K1 |
| | | KA | K2A | K2A | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | JA | KB | K2B | K2B | | | |
| | JB | KC | K2C | K2C | | | |
| | JC | KD | K2D | K2D | | | |
| | JD | KE | K2E | K2E | | | |
| | JE | | | | | | |
| | JF | | | | | | |
| | | KHRBG | K3:HR | K3:HR | | | |
| | | KMNBG | K3:MN | K3:MN | | | |
| | | KAPBG | K3:AP | K3:AP | | | |
| I38A:A1-2 | J2:A1-6 | K1:1-6 | K4A:1-6 | K4A:1-6 | K4A:1-6 | K4A:1-6 | K4A:1-6 |
| I37 | J1 | K1 | K4B | K4B | K4B | K4B | K4B |
| | J2:A7-12 | K1:7-12 | K5A:1-6 | K5A:1-6 | K5A:1-6 | K5A:1-6 | K5A:1-6 |
| | J2:A14 | K1:T | K5B:2 | K5B:2 | K5B:2 | K5B:2 | K5B:2 |
| | J3 | K3 | K6 | K6 | K6 | K6 | K6 |
| I38B:B1-2 | J4:A1-6 | K4:1-5 | K7:1-5 | K7:1-5 | K7:1-5 | K7:1-5 | K7:1-5 |
| | J5:A | K5:A | | | | | |
| | J5:B | K5:B | | | | | |
| | J6 | K6 | | | | | |
| | | | K7A | K7A | K7A | K7A | K7A |
| | | | K8 | K8 | K8 | K8 | K8 |
| | J7 | K7 | K9 | K9 | K9 | K9 | K9 |
| | J7A:A1-10 | K7A:1-10 | K9A:1-10 | K9A:1-10 | K9A:1-9 | K9A:1-9 | K9A:1-9 |
| | | | | | K9B:2 | K9B:2 | K9B:2 |
| | J7B:B1-3 | K7B:1-3 | | | | | |
| | | K8 | K10 | K10 | K10 | K10 | K10 |
| | | K8A:1-8 | K10A:1-8 | K10A:1-8 | K10A:1-6 | K10A:1-6 | K10A:1-6 |
| | | K8A:T | K10A:9 | K10A:9 | K10B:2 | K10B:2 | K10B:2 |
| | | K8B:1-3 | | | | | |
| I39:A | J8 | K9 | K11 | K11 | K11 | K11 | K11 |
| I39:B1-2 | J8A:A1-10 | K9A:1-8 | K11A:1-8 | K11A:1-8 | K11A:1-6 | K11A:1-6 | K11A:1-6 |
| | J8A:A12 | K9A:T | K11A:9 | K11A:9 | K11B:2 | K11B:2 | K11B:2 |
| | J9 | | | | | | |
| | J10 | K10 | K12 | K12 | K12 | K12 | K12 |
| | | K11 | K13 | K13 | K13 | K13 | K13 |
| | | K12:1-8 | K13A:1-8 | K13A:1-8 | K13A:1-6 | K13A:1-6 | K13A:1-6 |
| | | K12:T | K13A:9 | K13A:9 | K13B:2 | K13B:2 | K13B:2 |
| | | K12A:1-3 | | | | | |
| | J11 | K12B | K14 | K14 | K14 | K14 | K14 |
| | J12:A1-10 | K12C:1-8 | K14A:1-8 | K14A:1-8 | K14A:1-8 | K14A:1-8 | K14A:1-8 |
| | J12:A12 | K12C:T | K14A:9 | K14A:9 | K14B:2 | K14B:2 | K14B:2 |
| | | K13 | | | | | |
| | | K14:1-6 | | | | | |
| | | K15 | | | | | |
| | | K16 | | | | | |
| | J13 | K17 | | | | | |
| | J14:A1-10 | K18:1-8 | | | | | |
| | J14:A12 | K18:T | | | | | |
| | | K18A:1-3 | | | | | |
| | J15:1-5 | K19:1-5 | | | | | |
| | | | K15:1 | K15:1 | K15:1 | K15:1 | K15:1 |
| | | | K15:2 | K15:2 | K15:2 | K15:2 | K15:2 |
| | | | K15:3 | K15:3 | K15:3 | K15:3 | K15:3 |
| | | | K15:4 | K15:4 | K15:4 | K15:4 | K15:4 |
| | | | K15:5 | K15:5 | K15:5 | K15:5 | K15:5 |
| | | | K15:6 | K15:6 } | K15:6 | K15:6 | K15:6 |
| | | | K15:7 | K15:7 } | | | |
| | | | K15:8 | K15:8 | K15:7 | K15:7 | K15:7 |
| | | | K15:9 | K15:9 | | | |
| | | | K15:10 | K15:10 | | | |
| | | | K15:11 | K15:11 | K15:8 | K15:8 | K15:8 |
| | | | K15:12 | K15:12 | K15:9 | K15:9 | K15:9 |
| | | | K15:13 | K15:13 | K15:10 | K15:10 | K15:10 |
| | | | K15:14 | K15:14 | K15:11 | K15:11 | K15:11 |
| | | | K15:15 | K15:15 | K15:12 | K15:12 | K15:12 |
| | | | K15:16-20 | K15:16-20 | K15:13-17 | K15:13-17 | K15:13-17 |
| | | | K15:21 | K15:21 | K15:18 | K15:18 | K15:18 |
| | J15A:A1-3 | K19A:1-3 | K15A:1-3 | K15A:1-3 | K15A:1-3 | K15A:1-3 | K15A:1-3 |
| | | K20 | | | | | |
| | | K21:1-8 | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | K21:T | | | | | |
| | | K21A:1-3 | | | | | |
| | J16 | | | | | | |
| | J16A:A1-5 | | | | | | |
| | J16A:A6 | | | | | | |
| | J17 | K22 | | | | | |
| | J18:A1-8 | K23:1-8 | | | | | |
| | J18:A10 | K23:T | | | | | |
| | | K24 | K16 | K16 | K16 | K16 | K16 |
| | | K25 | K17 | K17 | K17 | K17 | K17 |
| | | | K17A:1-5 | K17A:1-5 | K17A:1-5 | K17A:1-5 | K17A:1-5 |
| | | K31 | K18 | K18 | K18 | K18 | K18 |
| | | | K18A | K18A | K18A | K18A | K18A |
| | | K32 | K19 | K19 | K19 | K19 | K19 |
| | | K32A:1-3 | | | | | |
| | | | K20 | K20 | K20 | K20 | K20 |
| | | | K21 | K21 | K21 | K21 | K21 |
| | | | K22 | K22 | K22 | K22 | K22 |
| | | | K23 | K23 | K23 | K23 | K23 |
| | | | K24 | K24 | K24 | K24 | K24 |
| | | | K25 | K25 | K25 | K25 | K25 |
| | | K33 | K26 | K26 | K26 | K26 | K26 |
| | | K34 | | | | | |
| | | K27 | K27 | K27 | K27 | K27 | K27 |
| | | | K28 | K28 | K28 | K28 | K28 |
| | | K30 | K29 | K29 | K29 | K29 | K29 |
| | | K30A:1-4 | K29A:1-4 | K29A:1-4 | K29A:1-4 | K29A:1-4 | K29A:1-4 |
| | | | K30 | K30 | K30 | K30 | K30 |
| | | K26 | K31 | K31 | K31 | K31 | K31 |
| | | K28 | K32 | K32 | K32 | K32 | K32 |
| | | K29 | K33 | K33 | K33 | K33 | K33 |
| | | K35 | K34 | K34 | K34 | K34 | K34 |
| | | K36 | K35 | K35 | K35 | K35 | K35 |
| | | K37:1-10 | K36:1-10 | K36:1-10 | K36:1-10 | K36:1-10 | K36:1-10 |
| | | K39 | | | | | |
| | | K40 | | | | | |
| | | K41 | K37 | K37 | K37 | K37 | K37 |
| | | K42 | | | | | |
| | | K38 | K38 | K38 | K38 | K38 | K38 |
| | | | K39 | K39 | K39 | K39 | K39 |
| | | K43 | K40 | K40 | K40 | K40 | K40 |
| | | | K41 | K41 | K41 | K41 | K41 |
| | | K44:A | K42:1 | K42:1 | K42:1 | K42:1 | K42:1 |
| | | K44:B | K42:2 | K42:2 | K42:2 | K42:2 | K42:2 |
| | | K44:D | K42:4 | K42:4 | K42:4 | K42:4 | K42:4 |
| | | K44:E | K42:5 | K42:5 | K42:5 | K42:5 | K42:5 |
| | | K44:F | K42:6 | K42:6 | K42:6 | K42:6 | K42:6 |
| | | K44:G | K42:7 | K42:7 | K42:7 | K42:7 | K42:7 |
| | | K44A:1-3 | K42A:1-3 | K42A:1-3 | K42A:1-3 | K42A:1-3 | K42A:1-3 |
| | | | K43 | K43 | K43 | K43 | K43 |
| | | | K44 | K44 | K44 | K44 | K44 |
| | | K45 | K45 | K45 | K45 | K45 | K45 |
| | J19A | K46J | K46A | K46A | K46A | K46A | K46A |
| | J19B | K46A | | | | | |
| | | K46B | | | | | |
| | | K46E | K46B | K46B | K46B | K46B | K46B |
| | | | K46C | K46C | K46C | K46C | K46C |
| | J19D | K46D | K46D | K46D | K46D | K46D | K46D |
| | | K46F | K46E | K46E | K46E | K46E | K46E |
| | | K46G | | | | | |
| | | K46I | K46F | K46F | K46F | K46F | K46F |
| | J19C | K46C | K46G | K46G | K46G | K46G | K46G |
| | | | K46H | K46H | K46H | K46H | |
| | J19E | K46H | K46I | K46I | K46I | K46I | K46H |
| | | | K46J | K46J | K46J | K46J | K46I |
| | J20 | K47 | K47 | K47 | K47 | K47 | K47 |
| | | K48:1-9 | K48:1-9 | K48:1-9 | K48:1-8 | K48:1-8 | K48:1-8 |
| | | | K49 | K49 | K49 | K49 | K49 |
| | | | K50 | K50 | K50 | K50 | K50 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| IHREN | JHREN | KHREN | K51:HR | K51:HR | K51:HR | K51:HR | K51:HR |
| IMNEN | JMNEN | KMNEN | K51:MN | K51:MN | K51:MN | K51:MN | K51:MN |
| IAPEN | JAPEN | KAPEN | K51:AP | K51:AP | K51:AP | K51:AP | K51:AP |
| | | | K51X | K51X | K51X | K51X | K51X |
| | | | K51X:A1 | K51X:A1 | K51X:A1 | K51X:A1 | K51X:A1 |
| | | | K51X:A2 | K51X:A2 | K51X:A2 | K51X:A2 | K51X:A2 |
| | | | K51X:A3 | K51X:A3 | K51X:A3 | K51X:A3 | K51X:A3 |
| IMST | JSTA | KSTAT | KSTAT | KSTAT | | | |

Previous Owner Supplement

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | | P1 | P1 | | | |
| | | | | | P1 | P1 | P1 |
| | P1 | P2 | P2B | P2B | P2B | P2B | P2B |
| | P2 | P3 | P2C | P2C | P2C | P2C | P2C |
| | P3 | P4 | P2D | P2D | P2D | P2D | P2D |
| | P4 | P5 | P2E | P2E | | | |
| | PHRBG | PHRBG | P3:HR | P3:HR | P3:HR | P3:HR | P3:HR |
| | PMNBG | PMNBG | P3:MN | P3:MN | P3:MN | P3:MN | P3:MN |
| | PAPBG | PAPBG | P3:AP | P3:AP | P3:AP | P3:AP | P3:AP |
| | | | | | P4:MO | P4:MO | P4:MO |
| | | | | | P4:DA | P4:DA | P4:DA |
| | | | | | P4:YR | P4:YR | P4:YR |
| | P5 | P6 | | | | | |
| | P6 | P7 | | | | | |
| | P7 | P8 | | | | | |
| | P8 | P9 | P4 | P4 | P4A | P4A | P4A |
| | P9 | P10 | | | | | |
| | | P11-P48 | | | | | |
| | | | P5 | P5 | P5 | P5 | P5 |
| | | P92 | P6 | P6 | P6 | P6 | P6 |
| | | | | | P7 | P7 | P7 |
| | P30 | P79 | P7 | P7 | P7A | P7A | P7A |
| | P10 | P50 | | | | | |
| | | P51 | | | P8 | P8 | P8 |
| | | P52 | | | | | |
| | P101 | P53 | P8 | P8 | P8A | P8A | P8A |
| | | P54 | | | | | |
| | | P145 | | | | | |
| | | | | | P9 | P9 | P9 |
| | P11 | P55 | P9 | P9 | P9A | P9A | P9A |
| | | P56 | | | P10 | P10 | P10 |
| | P12 | P57 | P10 | P10 | P10A | P10A | P10A |
| | P13 | P58 | | | | | |
| | P14 | P59 | | | | | |
| | P15 | P60 | | | | | |
| | P16:1-5 | | | | | | |
| | P17:1-5 | P62:1-5 | | | | | |
| | P18:1-5 | P61:1-5 | | | | | |
| | P19:2-4 | P63:2-4 | | | | | |
| | P20:1 | P64:1 | | | | | |
| | | P65 | | | | | |
| | | P66 | | | | | |
| | P21 | P69 | | | | | |
| | P22 | P70 | | | | | |
| | P23 | P71 | | | | | |
| | P24 | P72 | | | | | |
| | P25:A-E | P73:A-E | | | | | |
| | P26 | P74 | | | | | |
| | P27 | P67 | | | | | |
| | P28 | P68 | | | | | |
| | | P75 | | | | | |
| | | P76 | | | | | |
| | | P77 | | | | | |
| | P29 | P78 | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | P31 | P80 | | | | | |
| | | P81 | | | | | |
| | P33:1-6 | P83:1-6 | | | | | |
| | P34:1-6 | P84:1-6 | | | | | |
| | P35:3-6 | | | | | | |
| | P36:1-6 | P85:1-6 | | | | | |
| | P37:1-6 | P86:1-6 | | | | | |
| | P38:1-2 | P87:1-2 | | | | | |
| | P39:1-2 | P88:1-2 | | | | | |
| | P40:1-2 | P89:1-2 | | | | | |
| | P41:1-2 | | | | | | |
| | P42:1-2 | P90:1-2 | | | | | |
| | P43:1 | P91:1 | | | | | |
| | | P93 | | | | | |
| | | P94 | | | | | |
| | P44 | P95 | | | | | |
| | P45 | P96 | | | | | |
| | P47 | P98 | | | | | |
| | P48 | P99 | | | | | |
| | P50 | | | | | | |
| | | | | | P11 | P11 | P11 |
| | | | P11 | P11 | P11A | P11A | P11A |
| | P51 | P100 | P12 | P12 | P12 | P12 | P12 |
| | P52 | P101 | P13 | P13 | P13 | P13 | P13 |
| | | | P14 | P14 | P14 | P14 | P14 |
| | | | PD1:HR | PD1:HR | | | |
| | | | PD1:MN | PD1:MN | | | |
| | | | PD1:AP | PD1:AP | | | |
| | P53 | | | | | | |
| | P54 | P102 | PD3 | PD3 | PD3 | PD3 | PD3 |
| | P55 | | | | | | |
| | P56 | P103 | PD4 | PD4 | PD4 | PD4 | PD4 |
| | | | PD7A-B | PD7A-B | PD7A-B | PD7A-B | PD7A-B |
| | | | PD8 | PD8 | PD8 | PD8 | PD8 |
| | P58:B | | PD9A | PD9A | PD9A | PD9A | PD9A |
| | P58:A | | PD9B | PD9B | PD9B | PD9B | PD9B |
| | | | PD9C | PD9C | PD9C | PD9C | PD9C |
| | | | PD9D | PD9D | PD9D | PD9D | PD9D |
| | P58:C | | PD9E | PD9E | PD9E | PD9E | PD9E |
| | | | PD9F | PD9F | PD9F | PD9F | PD9F |
| | P59 | P106 | PD10 | PD10 | PD10 | PD10 | PD10 |
| | P60:A | | | | | | |
| | P60:B | P107:A | PD11A | PD11A | PD11A | PD11A | PD11A |
| | P60:C | P107:B | PD11B | PD11B | PD11B | PD11B | PD11B |
| | P60:D | P107:C | PD11C | PD11C | PD11C | PD11C | PD11C |
| | | P107:D | PD11D | PD11D | PD11D | PD11D | PD11D |
| | P60:E | P107:E | PD11E | PD11E | PD11E | PD11E | PD11E |
| | P61 | P108 | PD12 | PD12 | PD12 | PD12 | PD12 |
| | P62 | P109 | PD13 | PD13 | PD13 | PD13 | PD13 |
| | P63:A | | | | | | |
| | P63:B | P110:A | PD14A | PD14A | PD14A | PD14A | PD14A |
| | P63:C | P110:B | PD14B | PD14B | PD14B | PD14B | PD14B |
| | P63:D | P110:C | PD14C | PD14C | PD14C | PD14C | PD14C |
| | | P110:D | PD14D | PD14D | PD14D | PD14D | PD14D |
| | P63:E | P110:E | PD14E | PD14E | PD14E | PD14E | PD14E |
| | P64 | P111 | PD15 | PD15 | PD15 | PD15 | PD15 |
| | P65:A | | | | | | |
| | P65:B | P112:A | PD16A | PD16A | PD16A | PD16A | PD16A |
| | P65:C | P112:B | PD16B | PD16B | PD16B | PD16B | PD16B |
| | P65:D | P112:C | PD16C | PD16C | PD16C | PD16C | PD16C |
| | | P112:D | PD16D | PD16D | PD16D | PD16D | PD16D |
| | P65:E | P112:E | PD16E | PD16E | PD16E | PD16E | PD16E |
| | P66 | P113 | PD17 | PD17 | PD17 | PD17 | PD17 |
| | P67 | P114 | PD18 | PD18 | PD18 | PD18 | PD18 |
| | P68:A-E | | | | | | |
| | P69 | P115 | PD19 | PD19 | PD19 | PD19 | PD19 |
| | P70:A | | | | | | |
| | P70:B | P116:A | PD20A | PD20A | PD20A | PD20A | PD20A |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | P70:C | P116:B | PD20B | PD20B | PD20B | PD20B | PD20B |
| | P70:D | P116:C | PD20C | PD20C | PD20C | PD20C | PD20C |
| | | P116:D | PD20D | PD20D | PD20D | PD20D | PD20D |
| | P70:E | P116:E | PD20E | PD20E | PD20E | PD20E | PD20E |
| | P71 | P117 | PD21 | PD21 | PD21 | PD21 | PD21 |
| | P72:A | | | | | | |
| | P72:B | P118:A | PD22A | PD22A | PD22A | PD22A | PD22A |
| | P72:C | P118:B | PD22B | PD22B | PD22B | PD22B | PD22B |
| | P72:D | P118:C | PD22C | PD22C | PD22C | PD22C | PD22C |
| | | P118:D | PD22D | PD22D | PD22D | PD22D | PD22D |
| | P72:E | P118:E | PD22E | PD22E | PD22E | PD22E | PD22E |
| | P73 | P119 | PD23 | PD23 | PD23 | PD23 | PD23 |
| | P74:A | | | | | | |
| | P74:B | P120:A | PD24A | PD24A | PD24A | PD24A | PD24A |
| | P74:C | P120:B | PD24B | PD24B | PD24B | PD24B | PD24B |
| | P74:D | P120:C | PD24C | PD24C | PD24C | PD24C | PD24C |
| | | P120:D | PD24D | PD24D | PD24D | PD24D | PD24D |
| | P74:E | P120:E | PD24E | PD24E | PD24E | PD24E | PD24E |
| | P75 | P121 | PD25 | PD25 | PD25 | PD25 | PD25 |
| | P77 | P123 | PD26 | PD26 | PD26 | PD26 | PD26 |
| | P76 | P122 | PD27 | PD27 | PD27 | PD27 | PD27 |
| | P78 | P124 | PD28 | PD28 | PD28 | PD28 | PD28 |
| | P79 | P125 | PD29 | PD29 | PD29 | PD29 | PD29 |
| | P81 | P127 | PD30 | PD30 | PD30 | PD30 | PD30 |
| | P80 | P126 | PD31 | PD31 | PD31 | PD31 | PD31 |
| | | | PD32 | PD32 | PD32 | PD32 | PD32 |
| | P82 | P128 | PD33 | PD33 | PD33 | PD33 | PD33 |
| | P83 | | | | | | |
| | P84 | P129 | | | | | |
| | P85 | P130 | PD34 | PD34 | PD34 | PD34 | PD34 |
| | P86 | P131:A-B | PD35A-B | PD35A-B | PD35A-B | PD35A-B | PD35A-B |
| | P87 | P132 | PD36 | PD36 | PD36 | PD36 | PD36 |
| | P88 | P133 | PD37 | PD37 | PD37 | PD37 | PD37 |
| | P89 | P134:A-B | PD38A-B | PD38A-B | PD38A-B | PD38A-B | PD38A-B |
| | P90 | P135 | PD39 | PD39 | PD39 | PD39 | PD39 |
| | P91 | P136 | PD40 | PD40 | PD40 | PD40 | PD40 |
| | P92 | P137 | PD41 | PD41 | PD41 | PD41 | PD41 |
| | P93 | P138 | PD42 | PD42 | PD42 | PD42 | PD42 |
| | P94 | P139 | PD43 | PD43 | PD43 | PD43 | PD43 |
| | | | PD43A | PD43A | PD43A | PD43A | PD43A |
| | P95 | P140 | PD44 | PD44 | PD44 | PD44 | PD44 |
| | P96 | | | | | | |
| | P97 | P141 | PD45 | PD45 | PD45 | PD45 | PD45 |
| | P98 | P142 | PD46 | PD46 | PD46 | PD46 | PD46 |
| | P99 | P143 | PD47 | PD47 | PD47 | PD47 | PD47 |
| | P100 | P144 | PD48 | PD48 | PD48 | PD48 | PD48 |
| | P102 | P146 | PD49 | PD49 | PD49 | PD49 | PD49 |
| | | P147 | PD50 | PD50 | PD50 | PD50 | PD50 |
| | P103 | P148 | PD51 | PD51 | PD51 | PD51 | PD51 |
| | P104 | P149 | PD52 | PD52 | PD52 | PD52 | PD52 |
| | P105 | P150 | PD53 | PD53 | PD53 | PD53 | PD53 |
| | P106 | P151 | PD54 | PD54 | PD54 | PD54 | PD54 |
| | P107 | P152 | PD55 | PD55 | PD55 | PD55 | PD55 |
| | P108 | P153 | PD56 | PD56 | PD56 | PD56 | PD56 |
| | P109 | P154 | PD57 | PD57 | PD57 | PD57 | PD57 |
| | P110 | P155 | PD58 | PD58 | PD58 | PD58 | PD58 |
| | P111 | P156 | PD59 | PD59 | PD59 | PD59 | PD59 |
| | P112 | P157 | PD60 | PD60 | PD60 | PD60 | PD60 |
| | P113 | P158 | PD61 | PD61 | PD61 | PD61 | PD61 |
| | P114 | P159 | PD62 | PD62 | PD62 | PD62 | PD62 |
| | P115 | P160 | PD63 | PD63 | PD63 | PD63 | PD63 |
| | P116 | P161 | | | | | |
| | P117 | P162 | PD64 | PD64 | PD64 | PD64 | PD64 |
| | P118 | P163 | PD65 | PD65 | PD65 | PD65 | PD65 |
| | P119 | P164 | | | | | |
| | P120 | P165 | | | | | |
| | P121 | P166 | | | | | |
| | | | PD66 | PD66 | PD66 | PD66 | PD66 |
| | P122 | P167 | PD67 | PD67 | PD67 | PD67 | PD67 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | P123 | P168 | PD68 | PD68 | PD68 | PD68 | PD68 |
| | P124 | P169 | PD69 | PD69 | PD69 | PD69 | PD69 |
| | P125 | P170 | | | | | |
| | P126:A-E | P171:A-E | | | | | |
| | P127 | P172 | | | | | |
| | | P173 | PD70 | PD70 | PD70 | PD70 | PD70 |
| | P128 | | PD71 | PD71 | PD71 | PD71 | PD71 |
| | P129 | | PD72 | PD72 | PD72 | PD72 | PD72 |
| | P130 | | PD73 | PD73 | PD73 | PD73 | PD73 |
| | P131 | | PD74 | PD74 | PD74 | PD74 | PD74 |
| | P132 | | PD75 | PD75 | PD75 | PD75 | PD75 |
| | P133 | | PD76 | PD76 | | | |
| | | | PD77A-F | PD77A-F | | | |
| | | | PD78A-F | PD78A-F | | | |
| | | | PD79 | PD79 | PD79 | PD79 | PD79 |
| | | | PD80 | PD80 | | | |
| | P134 | | PD81 | PD81 | PD81 | PD81 | PD81 |
| | P135 | | | | | | |
| | P136 | P174 | | | | | |
| | | P175 | | | | | |
| | P137 | P176 | PD82 | PD82 | | | |
| | P138:A | | | | | | |
| | P138:B | | | | | | |
| | P138:C | P177:A | PD83A | PD83A | | | |
| | P138:D | P177:B | PD83B | PD83B | | | |
| | P138:E | P177:C | PD83C | PD83C | | | |
| | P138:F | P177:D | PD83D | PD83D | | | |
| | P138:G | P177:E | PD83E | PD83E | | | |
| | P138:H | P177:F | PD83F | PD83F | | | |
| | P138:I | P177:G | PD83G | PD83G | | | |
| | P138:J | | PD83H | PD83H | | | |
| | P138:K | P177:H | | | | | |
| | P139 | P243 | | | | | |
| | P140 | | | | | | |
| | | P244 | | | | | |
| | P141 | P245 | | | | | |
| | P142 | P246 | | | | | |
| | P143 | | | | | | |
| | | P247 | | | | | |
| | | P248 | | | | | |
| | | P249 | | | | | |
| | P144 | P250 | | | | | |
| | P145 | P251 | | | | | |
| | P146 | | | | | | |
| | P147 | | | | | | |
| | | P251:A | | | | | |
| | P171 | P198 | PE3 | PE3 | PE3 | PE3 | PE3 |
| | P172 | P199 | PE3A | PE3A | PE3A | PE3A | PE3A |
| | P173 | P200 | PE4 | PE4 | PE4 | PE4 | PE4 |
| | P173:A | P201 | PE4A | PE4A | PE4A | PE4A | PE4A |
| | | | PE5A-G | PE5A-G | | | |
| | P148 | P178 | PE6 | PE6 | PE6 | PE6 | PE6 |
| | P151 | P179 | PE7 | PE7 | PE7 | PE7 | PE7 |
| | | | PE8 | PE8 | | | |
| | P149:A | P180 | PE9 | PE9 | | | |
| | P149:B | P181:A | PE10A | PE10A | | | |
| | P149:C | P181:B | PE10B | PE10B | | | |
| | P149:D | P181:C | PE10C | PE10C | | | |
| | P149:E | P181:D | PE10D | PE10D | | | |
| | P149:F } | P181:E | PE10E | PE10E | | | |
| | P149:G } | | | | | | |
| | P150 | | | | | | |
| | P152:1-5 | | | | | | |
| | P155:1-5 } | P184 | PE13 | PE13 | PE13 | PE13 | PE13 |
| | P166 } | | | | | | |
| | P167 | | | | | | |
| | P156:1-5 | P185 | PE14 | PE14 | PE14 | PE14 | PE14 |
| | P157:1-5 } | P186 | PE15 | PE15 | PE15 | PE15 | PE15 |
| | P168 } | | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | P169 | | | | | | |
| | P158:1-5 | P187 | PE16 | PE16 | PE16 | PE16 | PE16 |
| | | P188 | | | | | |
| | P159:1-5 | P190 | PE17 | PE17 | PE17 | PE17 | PE17 |
| | P160:1-5 | P191 | PE18 | PE18 | PE18 | PE18 | PE18 |
| | P170 | | | | | | |
| | P161:1-5 | P192 | PE19 | PE19 | PE19 | PE19 | PE19 |
| | | P195:A | PE20A | PE20A | PE20A | PE20A | PE20A |
| | | P195:B | PE20B | PE20B | PE20B | PE20B | PE20B |
| | | P195:C | PE20C | PE20C | PE20C | PE20C | PE20C |
| | | P196 | PE21 | PE21 | PE21 | PE21 | PE21 |
| | | P197:A | PE22A | PE22A | PE22A | PE22A | PE22A |
| | | P197:B | PE22B | PE22B | PE22B | PE22B | PE22B |
| | | P197:C | PE22C | PE22C | PE22C | PE22C | PE22C |
| | | P193 | PE23 | PE23 | | | |
| | P162:1-5 | P194 | PE24 | PE24 | | | |
| | P163 | | | | | | |
| | P174:1-5 | P202:1-5 | PE25:1-5 | PE25:1-5 | PE25:1-5 | PE25:1-5 | PE25:1-5 |
| | P175:1-5 | P203:1-5 | PE26:1-5 | PE26:1-5 | PE26:1-5 | PE26:1-5 | PE26:1-5 |
| | P176:1-5 | P204:1-5 | PE27:1-5 | PE27:1-5 | PE27:1-5 | PE27:1-5 | PE27:1-5 |
| | P177:1-5 | P205:1-5 | PE28:1-5 | PE28:1-5 | PE28:1-5 | PE28:1-5 | PE28:1-5 |
| | P178:6 | P206:6 | PE25:6 | PE25:6 | PE25:6 | PE25:6 | PE25:6 |
| | P179:6 | P207:6 | PE26:6 | PE26:6 | PE26:6 | PE26:6 | PE26:6 |
| | P180:6 | P208:6 | PE27:6 | PE27:6 | PE27:6 | PE27:6 | PE27:6 |
| | P181:6 | P209:6 | PE28:6 | PE28:6 | PE28:6 | PE28:6 | PE28:6 |
| | P178:8 | P206:8 | PE25:7 | PE25:7 | PE25:7 | PE25:7 | PE25:7 |
| | P179:8 | P207:8 | PE26:7 | PE26:7 | PE26:7 | PE26:7 | PE26:7 |
| | P180:8 | P208:8 | PE27:7 | PE27:7 | PE27:7 | PE27:7 | PE27:7 |
| | P181:8 | P209:8 | PE28:7 | PE28:7 | PE28:7 | PE28:7 | PE28:7 |
| | P178:7 | P206:7 | PE25:8 | PE25:8 | PE25:8 | PE25:8 | PE25:8 |
| | P179:7 | P207:7 | PE26:8 | PE26:8 | PE26:8 | PE26:8 | PE26:8 |
| | P180:7 | P208:7 | PE27:8 | PE27:8 | PE27:8 | PE27:8 | PE27:8 |
| | P181:7 | P209:7 | PE28:8 | PE28:8 | PE28:8 | PE28:8 | PE28:8 |
| | P178:9 | P206:9 | PE25:9 | PE25:9 | PE25:9 | PE25:9 | PE25:9 |
| | P179:9 | P207:9 | PE26:9 | PE26:9 | PE26:9 | PE26:9 | PE26:9 |
| | P180:9 | P208:9 | PE27:9 | PE27:9 | PE27:9 | PE27:9 | PE27:9 |
| | P181:9 | P209:9 | PE28:9 | PE28:9 | PE28:9 | PE28:9 | PE28:9 |
| | P178:10 | P206:10 | PE25:10 | PE25:10 | PE25:10 | PE25:10 | PE25:10 |
| | P179:10 | P207:10 | PE26:10 | PE26:10 | PE26:10 | PE26:10 | PE26:10 |
| | P180:10 | P208:10 | PE27:10 | PE27:10 | PE27:10 | PE27:10 | PE27:10 |
| | P181:10 | P209:10 | PE28:10 | PE28:10 | PE28:10 | PE28:10 | PE28:10 |
| | P182:11 | P210:11 | PE25:11 | PE25:11 | PE25:11 | PE25:11 | PE25:11 |
| | P183:11 | P211:11 | PE26:11 | PE26:11 | PE26:11 | PE26:11 | PE26:11 |
| | P184:11 | P212:11 | PE27:11 | PE27:11 | PE27:11 | PE27:11 | PE27:11 |
| | P185:11 | P213:11 | PE28:11 | PE28:11 | PE28:11 | PE28:11 | PE28:11 |
| | P182:12 | P210:12 | PE25:12 | PE25:12 | PE25:12 | PE25:12 | PE25:12 |
| | P183:12 | P211:12 | PE26:12 | PE26:12 | PE26:12 | PE26:12 | PE26:12 |
| | P184:12 | P212:12 | PE27:12 | PE27:12 | PE27:12 | PE27:12 | PE27:12 |
| | P185:12 | P213:12 | PE28:12 | PE28:12 | PE28:12 | PE28:12 | PE28:12 |
| | P182:13 | P210:13 | PE25:13 | PE25:13 | PE25:13 | PE25:13 | PE25:13 |
| | P183:13 | P211:13 | PE26:13 | PE26:13 | PE26:13 | PE26:13 | PE26:13 |
| | P184:13 | P212:13 | PE27:13 | PE27:13 | PE27:13 | PE27:13 | PE27:13 |
| | P185:13 | P213:13 | PE28:13 | PE28:13 | PE28:13 | PE28:13 | PE28:13 |
| | | P210:14 | PE25:14 | PE25:14 | PE25:14 | PE25:14 | PE25:14 |
| | | P211:14 | PE26:14 | PE26:14 | PE26:14 | PE26:14 | PE26:14 |
| | | P212:14 | PE27:14 | PE27:14 | PE27:14 | PE27:14 | PE27:14 |
| | | P213:14 | PE28:14 | PE28:14 | PE28:14 | PE28:14 | PE28:14 |
| | P186 | P214 | | | | | |
| | P187:1 | P215:1 | PE32:1 | PE32:1 | PE32:1 | PE32:1 | PE32:1 |
| | P188:1 | P216:1 | PE33:1 | PE33:1 | PE33:1 | PE33:1 | PE33:1 |
| | P190:A1 | P218:A1 | PE34A:1 | PE34A:1 | | | |
| | P190:B1 | P218:B1 | PE34B:1 | PE34B:1 | | | |
| | P190:C1 | P218:C1 | PE34C:1 | PE34C:1 | | | |
| | P190:D1 | P218:D1 | PE34D:1 | PE34D:1 | | | |
| | P189:A1 | P217:A1 | PE35A:1 | PE35A:1 | PE35A:1 | PE35A:1 | PE35A:1 |
| | | | PE35B:1 | PE35B:1 | PE35B:1 | PE35B:1 | PE35B:1 |
| | P189:B1 | P217:B1 | PE35C:1 | PE35C:1 | PE35C:1 | PE35C:1 | PE35C:1 |
| | P189:C1 | P217:C1 | PE35D:1 | PE35D:1 | PE35D:1 | PE35D:1 | PE35D:1 |
| | P187:2 | P215:2 | PE32:2 | PE32:2 | PE32:2 | PE32:2 | PE32:2 |

| LL11 | LL21 | LL12 | LL22* | LL13* | LL23** | LL14** | LL24** |
|---|---|---|---|---|---|---|---|
| | P188:2 | P216:2 | PE33:2 | PE33:2 | PE33:2 | PE33:2 | PE33:2 |
| | P190:A2 | P218:A2 | PE34A:2 | PE34A:2 | | | |
| | P190:B2 | P218:B2 | PE34B:2 | PE34B:2 | | | |
| | P190:C2 | P218:C2 | PE34C:2 | PE34C:2 | | | |
| | P190:D2 | P218:D2 | PE34D:2 | PE34D:2 | | | |
| | P189:A2 | P217:A2 | PE35A:2 | PE35A:2 | PE35A:2 | PE35A:2 | PE35A:2 |
| | | | PE35B:2 | PE35B:2 | PE35B:2 | PE35B:2 | PE35B:2 |
| | P189:B2 | P217:B2 | PE35C:2 | PE35C:2 | PE35C:2 | PE35C:2 | PE35C:2 |
| | P189:C2 | P217:C2 | PE35D:2 | PE35D:2 | PE35D:2 | PE35D:2 | PE35D:2 |
| | P187:3 | P215:3 | PE32:3 | PE32:3 | PE32:3 | PE32:3 | PE32:3 |
| | P188:3 | P216:3 | PE33:3 | PE33:3 | PE33:3 | PE33:3 | PE33:3 |
| | P189:A3 | P217:A3 | PE35A:3 | PE35A:3 | PE35A:3 | PE35A:3 | PE35A:3 |
| | | | PE35B:3 | PE35B:3 | PE35B:3 | PE35B:3 | PE35B:3 |
| | P189:B3 | P217:B3 | PE35C:3 | PE35C:3 | PE35C:3 | PE35C:3 | PE35C:3 |
| | P189:C3 | P217:C3 | PE35D:3 | PE35D:3 | PE35D:3 | PE35D:3 | PE35D:3 |
| | P187:A4 | P215:A4 | PE32A:4 | PE32A:4 | PE32A:4 | PE32A:4 | PE32A:4 |
| | P187:B4 | P215:B4 | PE32B:4 | PE32B:4 | PE32B:4 | PE32B:4 | PE32B:4 |
| | P188:4 | P216:4 | PE33:4 | PE33:4 | PE33:4 | PE33:4 | PE33:4 |
| | P190:B4 | P218:B4 | PE34A:4 | PE34A:4 | | | |
| | P190:A4 | P218:A4 | PE34B:4 | PE34B:4 | | | |
| | P189:A4 | P217:A4 | PE35A:4 | PE35A:4 | PE35A:4 | PE35A:4 | PE35A:4 |
| | | | PE35B:4 | PE35B:4 | PE35B:4 | PE35B:4 | PE35B:4 |
| | P189:B4 | P217:B4 | PE35C:4 | PE35C:4 | PE35C:4 | PE35C:4 | PE35C:4 |
| | P189:C4 | P217:C4 | PE35D:4 | PE35D:4 | PE35D:4 | PE35D:4 | PE35D:4 |
| | P187:5 | P215:5 | PE32:5 | PE32:5 | PE32:5 | PE32:5 | PE32:5 |
| | P188:5 | P216:5 | PE33:5 | PE33:5 | PE33:5 | PE33:5 | PE33:5 |
| | P189:A5 | P217:A5 | PE35A:5 | PE35A:5 | PE35A:5 | PE35A:5 | PE35A:5 |
| | | | PE35B:5 | PE35B:5 | PE35B:5 | PE35B:5 | PE35B:5 |
| | P191:1 | P219:1 | PE32:6 | PE32:6 | PE32:6 | PE32:6 | PE32:6 |
| | P192:1 | P220:1 | PE33:6 | PE33:6 | PE33:6 | PE33:6 | PE33:6 |
| | P193:A1 | P221:A1 | PE35A:6 | PE35A:6 | PE35A:6 | PE35A:6 | PE35A:6 |
| | | | PE35B:6 | PE35B:6 | PE35B:6 | PE35B:6 | PE35B:6 |
| | P193:B1 | P221:B1 | PE35C:6 | PE35C:6 | PE35C:6 | PE35C:6 | PE35C:6 |
| | P193:C1 | P221:C1 | PE35D:6 | PE35D:6 | PE35D:6 | PE35D:6 | PE35D:6 |
| | P191:2 | P219:2 | PE32:7 | PE32:7 | PE32:7 | PE32:7 | PE32:7 |
| | P192:2 | P220:2 | PE33:7 | PE33:7 | PE33:7 | PE33:7 | PE33:7 |
| | P193:2 | P221:A2 | PE35A:7 | PE35A:7 | PE35A:7 | PE35A:7 | PE35A:7 |
| | | | PE35B:7 | PE35B:7 | PE35B:7 | PE35B:7 | PE35B:7 |
| | P194 | P222 | PE36 | PE36 | PE36 | PE36 | PE36 |
| | P196:A1-5 | P223:A1-5 | PE37A:1-5 | PE37A:1-5 | PE37A:1-3 | PE37A:1-3 | PE37A:1-3 |
| | P196:B1-5 | P223:B1-5 | PE37B:1-5 | PE37B:1-5 | PE37B:1-3 | PE37B:1-3 | PE37B:1-3 |
| | P196:C1-5 | P223:C1-5 | PE37C:1-5 | PE37C:1-5 | PE37C:1-3 | PE37C:1-3 | PE37C:1-3 |
| | P195:A1-5 | P224:A1-5 | PE38A:1-5 | PE38A:1-5 | PE38A:1-3 | PE38A:1-3 | PE38A:1-3 |
| | P195:B1-5 | P224:B1-5 | PE38B:1-5 | PE38B:1-5 | PE38B:1-3 | PE38B:1-3 | PE38B:1-3 |
| | P195:C1-5 | P224:C1-5 | PE38C:1-5 | PE38C:1-5 | PE38C:1-3 | PE38C:1-3 | PE38C:1-3 |
| | P195:D1-5 | P224:D1-5 | PE38D:1-5 | PE38D:1-5 | PE38D:1-3 | PE38D:1-3 | PE38D:1-3 |
| | P195:E1-5 | P224:E1-5 | PE38E:1-5 | PE38E:1-5 | PE38E:1-3 | PE38E:1-3 | PE38E:1-3 |
| | P195:F1-5 | P224:F1-5 | PE38F:1-5 | PE38F:1-5 | PE38F:1-3 | PE38F:1-3 | PE38F:1-3 |
| | P195:G1-5 | P224:G1-5 | PE38G:1-5 | PE38G:1-5 | PE38G:1-3 | PE38G:1-3 | PE38G:1-3 |
| | P197:A1-5 | P225:A1-5 | PE39A:1-5 | PE39A:1-5 | PE39A:1-3 | PE39A:1-3 | PE39A:1-3 |
| | P197:B1-5 | P225:B1-5 | PE39B:1-5 | PE39B:1-5 | PE39B:1-3 | PE39B:1-3 | PE39B:1-3 |
| | P197:C1-5 | P225:C1-5 | PE39C:1-5 | PE39C:1-5 | PE39C:1-3 | PE39C:1-3 | PE39C:1-3 |
| | P198 | P226 | PE40 | PE40 | | | |
| | P199:C | P227:B | PE41A | PE41A | | | |
| | P199:A | P227:A | PE41B | PE41B | | | |
| | P199:B | | | | | | |
| | P199:D | P227:C | PE41C | PE41C | | | |
| | P199:E | P227:D | PE41D | PE41D | | | |
| | P199:F | P227:E | PE41E | PE41E | | | |
| | | | PFB2:HR | PFB2:HR | PFB2:HR | PFB2:HR | PFB2:HR |
| | | | PFB2:MN | PFB2:MN | PFB2:MN | PFB2:MN | PFB2:MN |
| | | | PFB2:AP | PFB2:AP | PFB2:AP | PFB2:AP | PFB2:AP |
| | | | PFBCA | PFBCA | PFB2C:1 | PFB2C:1 | PFB2C:1 |
| | | | PFBCB | PFBCB | PFB2C:2 | PFB2C:2 | PFB2C:2 |
| | P201 | P230 | PFA4 | PFA4 | PFA4 | PFA4 | PFA4 |
| | P202:1-15 | P231:1-15 | PFA5:1-15 | PFA5:1-15 | PFA5:1-15 | PFA5:1-15 | PFA5:1-15 |

*In this column, read PFA as PF(A-C); read PFB as PF(B-C).
**In this column, read PFA as PF(A-B).

| LL11 | LL21 | LL12 | LL22* | LL13* | LL23** | LL14** | LL24** |
|---|---|---|---|---|---|---|---|
| | P203:1-15 | P232:1-15 | PFA6:1-15 | PFA6:1-15 | PFA6:1-15 | PFA6:1-15 | PFA6:1-15 |
| | P204:1-15 | P234:A1-15 | | | | | |
| | P205:2-15 | P233:2-15 | | | | | |
| | P206:A1-15 | P234:B1-15 | | | | | |
| | P206:B1-15 | P234:C1-15 | | | | | |
| | P206:C1-15 | P234:D1-15 | | | | | |
| | P206:D1-15 | P234:E1-15 | | | | | |
| | P207:1-15 | | | | | | |
| | P208:1-15 | P235:1-15 | PFA7:1-15 | PFA7:1-15 | PFA7:1-15 | PFA7:1-15 | PFA7:1-15 |
| | | | PFA8:1-15 | PFA8:1-15 | PFA8:1-15 | PFA8:1-15 | PFA8:1-15 |
| | P209:1-15 | P236:1-15 | PFA8A:1-15 | PFA8A:1-15 | PFA8A:1-15 | PFA8A:1-15 | PFA8A:1-15 |
| | | | PFA9:1-15 | PFA9:1-15 | | | |
| | | | PFA10:1-15 | PFA10:1-15 | | | |
| | | | PFA11:1-15 | PFA11:1-15 | | | |
| | | | PFA12A1-15 | PFA12A1-15 | | | |
| | | | PFA12B1-15 | PFA12B1-15 | | | |
| | | | PFA12C1-15 | PFA12C1-15 | | | |
| | | | PFA12D1-15 | PFA12D1-15 | | | |
| | | | PFA12E1-15 | PFA12E1-15 | | | |
| | | | PFA12F1-15 | PFA12F1-15 | | | |
| | | | PFA12G1-15 | PFA12G1-15 | | | |
| | | | PFA12H1-15 | PFA12H1-15 | | | |
| | | | PFA12I1-15 | PFA12I1-15 | | | |
| | P210:1-15 | P237:1-15 | PFA13:1-15 | PFA13:1-15 | PFA13:1-15 | PFA13:1-15 | PFA13:1-15 |
| | P211 | | | | | | |
| | P212 | P238 | PFA14 | PFA14 | | | |
| | P213 | P239 | PFA15 | PFA15 | | | |
| | | P240 | | | | | |
| | | P241 | | | | | |
| | | P242 | PFA16 | PFA16 | PFA16 | PFA16 | PFA16 |
| | | | PFA17 | PFA17 | PFA17 | PFA17 | PFA17 |
| | | | PFA17A | PFA17A | PFA17A | PFA17A | PFA17A |
| | | | PFA18 | PFA18 | PFA18 | PFA18 | PFA18 |
| | | | PFA18A | PFA18A | PFA18A | PFA18A | PFA18A |
| | | | PFA19 | PFA19 | PFA19 | PFA19 | PFA19 |
| | | | PFA20 | PFA20 | PFA20 | PFA20 | PFA20 |
| | | | PFA20A | PFA20A | PFA20A | PFA20A | PFA20A |
| | | | PFA21 | PFA21 | PFA21 | PFA21 | PFA21 |
| | | | PFA22 | PFA22 | PFA22 | PFA22 | PFA22 |
| | | | PFA23 | PFA23 | PFA23 | PFA23 | PFA23 |
| | | | PFA23A | PFA23A | PFA23A | PFA23A | PFA23A |
| | | | PFA24 | PFA24 | PFA24 | PFA24 | PFA24 |
| | | | PFA24A | PFA24A | PFA24A | PFA24A | PFA24A |
| | | | PFA25 | PFA25 | PFA25 | PFA25 | PFA25 |
| | | | PFA26 | PFA26 | PFA26 | PFA26 | PFA26 |
| | | | PFA26A | PFA26A | PFA26A | PFA26A | PFA26A |
| | | | PFA27 | PFA27 | PFA27 | PFA27 | PFA27 |
| | | | PFA28 | PFA28 | PFA28 | PFA28 | PFA28 |
| | | | PFA29 | PFA29 | PFA29 | PFA29 | PFA29 |
| | | | PFA29A | PFA29A | PFA29A | PFA29A | PFA29A |
| | | | PFA30 | PFA30 | PFA30 | PFA30 | PFA30 |
| | | | PFA30A | PFA30A | PFA30A | PFA30A | PFA30A |
| | | | PFA31 | PFA31 | PFA31 | PFA31 | PFA31 |
| | | | PFA32 | PFA32 | PFA32 | PFA32 | PFA32 |
| | | | PFA32A | PFA32A | PFA32A | PFA32A | PFA32A |
| | | | PFA33 | PFA33 | PFA33 | PFA33 | PFA33 |
| | | | PFA34 | PFA34 | PFA34 | PFA34 | PFA34 |
| | P214 | P252 | PFA35 | PFA35 | | | |
| | P215:A | P253:A | PFA36A | PFA36A | | | |
| | P215:B | P253:B | PFA36B | PFA36B | | | |
| | P215:C | P253:D | | | | | |
| | P215:D | P253:C | PFA36C | PFA36C | | | |
| | | | PFB37:H | PFB37:H | PFB37:HR | PFB37:HR | PFB37:HR |
| | | | PFB37:M | PFB37:M | PFB37:MN | PFB37:MN | PFB37:MN |
| | | | PFB37:A | PFB37:A | PFB37:AP | PFB37:AP | PFB37:AP |
| | P216 | P254 | PG49 | PG49 | PG49 | PG49 | PG49 |

*In this column, read PFA as PF(A-C); read PFB as PF(B-C).
**In this column, read PFA as PF(A-B).

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | P217:M1-2 | P255:M1-2 | PG50M:1-2 | PG50M:1-2 | PG50M:1-2 | PG50M:1-2 | PG50M:1-2 |
| | P217:Y1-2 | P255:Y1-2 | PG50Y:1-2 | PG50Y:1-2 | PG50Y:1-2 | PG50Y:1-2 | PG50Y:1-2 |
| | P218:A1-2 | P260:A1-2 | PG51A:1-2 | PG51A:1-2 | PG51A:1-2 | PG51A:1-2 | PG51A:1-2 |
| | P218:B1-2 | P260:B1-2 | PG51B:1-2 | PG51B:1-2 | PG51B:1-2 | PG51B:1-2 | PG51B:1-2 |
| | P218:C1-2 | P260:C1-2 | PG51C:1-2 | PG51C:1-2 | PG51C:1-2 | PG51C:1-2 | PG51C:1-2 |
| | P218:D1-2 | P260:D1-2 | PG51D:1-2 | PG51D:1-2 | PG51D:1-2 | PG51D:1-2 | PG51D:1-2 |
| | P219:1-2 | P261:1-2 | PG52:1-2 | PG52:1-2 | PG52:1-2 | PG52:1-2 | PG52:1-2 |
| | P220:1-2 | P262:1-2 | PG53:1-2 | PG53:1-2 | PG53:1-2 | PG53:1-2 | PG53:1-2 |
| | P221:1-2 | P263:1-2 | PG54:1-2 | PG54:1-2 | PG54:1-2 | PG54:1-2 | PG54:1-2 |
| | P222:1-2 | P264:1-2 | PG55:1-2 | PG55:1-2 | PG55:1-2 | PG55:1-2 | PG55:1-2 |
| | P223 | P265 | PG56 | PG56 | PG56 | PG56 | PG56 |
| | P224:A | P266:A | PG57A | PG57A | PG57A | PG57A | PG57A |
| | P224:B | P266:B | PG57B | PG57B | PG57B | PG57B | PG57B |
| | P225 | P267 | PG58 | PG58 | PG58 | PG58 | PG58 |
| | P226:A | P268 | PG59 | PG59 | PG59 | PG59 | PG59 |
| | P226:B | P268:A | PG59A | PG59A | PG59A | PG59A | PG59A |
| | P226:C | P268:B | PG59B | PG59B | PG59B | PG59B | PG59B |
| | | P269 | | | | | |
| | | P270:A | | | | | |
| | | P270:B | | | | | |
| | | P271 | | | | | |
| | P227 | P272 | PG60 | PG60 | PG60 | PG60 | PG60 |
| | P228 | P273 | PG61 | PG61 | PG61 | PG61 | PG61 |
| | P229:A1-3 | P274:A1-2 | PG62A:1-2 | PG62A:1-2 | PG62A:1-2 | PG62A:1-2 | PG62A:1-2 |
| | P229:B1-3 | P274:B1-2 | PG62B:1-2 | PG62B:1-2 | PG62B:1-2 | PG62B:1-2 | PG62B:1-2 |
| | P229:C1-3 | P274:C1-2 | PG62C:1-2 | PG62C:1-2 | PG62C:1-2 | PG62C:1-2 | PG62C:1-2 |
| | P229:D1-3 | P274:D1-2 | PG62D:1-2 | PG62D:1-2 | PG62D:1-2 | PG62D:1-2 | PG62D:1-2 |
| | P229:E1-3 | P274:E1-2 | PG62E:1-2 | PG62E:1-2 | PG62E:1-2 | PG62E:1-2 | PG62E:1-2 |
| | P229:F1-3 | P274:F1-2 | PG62F:1-2 | PG62F:1-2 | PG62F:1-2 | PG62F:1-2 | PG62F:1-2 |
| | P229:G1-3 | P274:G1-2 | PG62G:1-2 | PG62G:1-2 | PG62G:1-2 | PG62G:1-2 | PG62G:1-2 |
| | P229:H1-3 | P274:H1-2 | PG62H:1-2 | PG62H:1-2 | PG62H:1-2 | PG62H:1-2 | PG62H:1-2 |
| | P230:1-3 | P275:1-2 | PG63:1-2 | PG63:1-2 | PG63:1-2 | PG63:1-2 | PG63:1-2 |
| | P231:1-3 | P276:1-2 | PG64:1-2 | PG64:1-2 | PG64:1-2 | PG64:1-2 | PG64:1-2 |
| | P232:1-3 | | | | | | |
| | P233:1-3 | P277:1-2 | PG65:1-2 | PG65:1-2 | PG65:1-2 | PG65:1-2 | PG65:1-2 |
| | P234 | P278 | PG66 | PG66 | PG66 | PG66 | PG66 |
| | P235 | | | | | | |
| | | P279:A-H | PG67A-H | PG67A-H | PG67A-H | PG67A-H | PG67A-H |
| | | P280 | PG68 | PG68 | PG68 | PG68 | PG68 |
| | | P281 | PG69 | PG69 | PG69 | PG69 | PG69 |
| | | P282 | PG70 | PG70 | PG70 | PG70 | PG70 |
| | P236 | P283 | PG71 | PG71 | PG71 | PG71 | PG71 |
| | P237 | P284 | PG72 | PG72 | PG72 | PG72 | PG72 |
| | P238 | P285 | PG73 | PG73 | PG73 | PG73 | PG73 |
| | P239:1-5 | P286:1-5 | | | | | |
| | P240 | P287 | PG76 | PG76 | PG76 | PG76 | PG76 |
| | P241:B1-3 | P288:B1-3 | PG77B:1-3 | PG77B:1-3 | PG77B:1-3 | PG77B:1-3 | PG77B:1-3 |
| | P241:A1-3 | P288:C1-3 | PG77C:1-3 | PG77C:1-3 | PG77C:1-3 | PG77C:1-3 | PG77C:1-3 |
| | P242:1-3 | P289:1-3 | PG78:1-3 | PG78:1-3 | PG78:1-3 | PG78:1-3 | PG78:1-3 |
| | P243:1-3 | P290:1-3 | PG79:1-3 | PG79:1-3 | PG79:1-3 | PG79:1-3 | PG79:1-3 |
| | P244:1-2 | P291:1-2 | PG80:1-2 | PG80:1-2 | PG80:1-2 | PG80:1-2 | PG80:1-2 |
| | P245 | P292 | PG81:3 | PG81:3 | | | |
| | | | PG82A | PG82A | | | |
| | | | PG82B | PG82B | | | |
| | | | PG82C | PG82C | | | |
| | P246:A | P293:A | PG82D | PG82D | | | |
| | P246:B | P293:B | PG82E | PG82E | | | |
| | P246:C | P293:C | PG82F | PG82F | | | |
| | P246:D | P293:D | PG82G | PG82G | | | |
| | P246:E | P293:E | PG82H | PG82H | | | |
| | PHREN | PHREN | PG83:HR | PG83:HR | PG83:HR | PG83:HR | PG83:HR |
| | PMNEN | PMNEN | PG83:MN | PG83:MN | PG83:MN | PG83:MN | PG83:MN |
| | PAPEN | PAPEN | PG83:AP | PG83:AP | PG83:AP | PG83:AP | PG83:AP |
| | | | PG84 | PG84 | PG84 | PG84 | PG84 |

## Landlord Record Folder

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| UINTID:1 | UIID1 | UID:1A-B | UID1:A-B | UID1:A-B | UID1 | UID1A-B | UID1 |
| UINTID:2 | UIID2 | UID:2A-B | UID2:A-B | UID2:A-B | UID2 | UID2A-B | UID2 |
| UINTID:3 | | | UID3:A-B | UID3:A-B | UID3 | UID3A-B | UID3 |
| UINTID:4 | | | | | | | UID4 |
| UINTID:5 | | | | | | | UID5 |
| UINTID:6 | | | | | | | |
| UATMPTS | | | | | | | |
| UFMONTH | UCMMO | UDATE:M | UCD:MO | UCD:MO | UIFD:MO | UIFD:MO | UIFD:MO |
| UFDAY | UCMDA | UDATE:D | UCD:DY | UCD:DY | UIFD:DY | UIFD:DY | UIFD:DY |
| UFYEAR | UCMYR | UDATE:Y | | | | | |
| UFSTAT | U1 | UFSC | U1FS | U1FS | U2FS | U2FS | U2FS |
| | U2:4 | UCONT:4 | U2A | U2A | U3A | U3A | U3A |
| | U2:1 | UCONT:1 | U2B | U2B | U3B | U3B | U3B |
| | U2:2 | UCONT:2 | U2C | U2C | U3C | U3C | U3C |
| | U2:3 | UCONT:3 | U2D | U2D | U3D | U3D | U3D |
| | U2:5 | UCONT:5 | U2E | U2E | U3E | U3E | U3E |
| | | | U2F | U2F | | | |
| | | | | | U3F | U3F | U3F |
| | | | U2G | U2G | U3G | U3G | U3G |
| | | | UAN:1-8 | UAN:1-8 | UAT1-9 | UAT1-9 | UAT1-9 |
| UDATE:M1-6 | U(1-12):A1 | U(1-12)A1 | UMO:1-8 | UMO:1-8 | U(1-9):AM | U(1-9):AM | U(1-9):AM |
| UDATE:D1-6 | U(1-12):A2 | U(1-12)A2 | UDY:1-8 | UDY:1-8 | U(1-9):AD | U(1-9):AD | U(1-9):AD |
| UDATE:Y1-6 | | | | | | | |
| | U(1-12):B | U(1-12)A3 | UDAY:1-8 | UDAY:1-8 | U(1-9):DA | U(1-9):DA | U(1-9):DA |
| UTIME:H1-6 | U(1-12):C1 | U(1-12)B1 | UBHR:1-8 | UBHR:1-8 | U(1-9):BH | U(1-9):BH | U(1-9):BH |
| UTIME:M1-6 | U(1-12):C2 | U(1-12)B2 | UBMN:1-8 | UBMN:1-8 | U(1-9):BM | U(1-9):BM | U(1-9):BM |
| UAMPM:1-6 | U(1-12):C3 | U(1-12)B3 | UBAP:1-8 | UBAP:1-8 | U(1-9):BPM | U(1-9):BPM | U(1-9):BPM |
| | U(1-12):D | U(1-12)C1 | UBTP:1-8 | UBTP:1-8 | U(1-9):CPT | U(1-9):CPT | U(1-9):CPT |
| | U(1-12):E | U(1-12)D1 | UD:1-8 | UD:1-8 | U(1-9):D | U(1-9):D | U(1-9):D |
| | | U(1-12)E1 | | | | | |
| | U(1-12):F | U(1-12)F1 | UE:1-8 | UE:1-8 | U(1-9):E | U(1-9):E | U(1-9):E |

## Validation Form

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | | VLSM | VLSM | VLSM | VLSM | VLSM |
| | VLINID | VLINID | VLIDA-B | VLIDA-B | VLINT | VLINT | VLINT |
| VSMON } | VL:M | VLD:M | | | | | |
| VMMON } | | | | | | | |
| VSDAY } | VL:D | VLD:D | | | | | |
| VMDAY } | | | | | | | |
| VSYR } | VL:Y | VLD:Y | | | | | |
| VMYR } | | | | | | | |
| VSEMID } | VLID | VLVNID | VLVDA-B | VLVDA-B | VLVAL | VLVAL | VLVAL |
| VMEMID } | | | | | | | |
| | | | | | VLSS | VLSS | VLSS |
| VSSTAT } | VLSTA1 | VLSTAT:A | VLFS | VLFS | VLFS | VLFS | VLFS |
| VMSTAT } | | | | | | | |
| | VLHRBG | | | | | | |
| | VLMNBG | | | | | | |
| | VLAPBG | | | | | | |
| | VLSTA2 | | | | | | |
| | VLCONT | VLCON | | | | | |
| | | VLNUM | | | | | |
| | | | | | | | VLFC:A |
| | | | | | | | VLFC:B |
| | | | | | VLA:1-15 | VLA:1-15 | VLA:1-6 |
| | | | VLRA-O | VLRA-O | VLR:1-15 | VLR:1-15 | VLR:1-6 |
| | | | VLTA-O | VLTA-O | VLTY:1-15 | VLTY:1-15 | VLTY:1-6 |
| | | | VLDA-O:MO | VLDA-O:MO | VLMO:1-15 | VLMO:1-15 | VLMO:1-6 |
| | | | VLDA-O:DY | VLDA-O:DY | VLDA:1-15 | VLDA:1-15 | VLDA:1-6 |
| | | | | | VL1:HR | VL1:HR | VL1:HR |
| | | | | | VL1:MN | VL1:MN | VL1:MN |
| | | | | | VL1:AP | VL1:AP | VL1:AP |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | VL1:1-5 | | | | | |
| VS1 | VL1 | VL2:A1-5 | VL1:1-3 | VL1:1-3 | VL2 | VL2 | VL2 |
| VM1 | | | | | | | |
| | VL2:A-L | VL2:B1-5 | | | | | |
| | | | | | VL3 | VL3 | VL3 |
| | | | | | VL4 | VL4 | VL4 |
| | | | | | VL5 | VL5 | VL5 |
| | | | | | | | VL5A |
| | | | | | VL6 | VL6 | VL6 |
| | | | | | VL7 | VL7 | VL7 |
| VS2 | VL1A | VL3:A1-5 | VL2:1-3 | VL2:1-3 | VL8 | VL8 | VL8 |
| | | | VL2A:1-3 | VL2A:1-3 | | | |
| | | | VL2B:1-3 | VL2B:1-3 | VL8A | VL8A | VL8A |
| | | VL3:B1-5 | | | | | |
| | | VL3:C1-5A | | | | | |
| | | VL3:C1-5B | | | | | |
| | | VL3:C1-5C | | | | | |
| | | VLSTAT:1-5 | | | | | |
| | | VLAL:1-5 | | | | | |
| | | VL4:1-2 | | | | | |
| VS3A | VL3:A | | | | | | |
| VM2A | | | | | | | |
| VS3B | VL3:B | | | | | | |
| VM2B | | | | | | | |
| VS3C | VL4 | | | | | | |
| VM3 | | | | | | | |
| VS3D | VL5:C | | | | | | |
| VM3C | VL5:D | | | | | | |
| VS3E | VL5:E | | | | | | |
| VM3D | | | | | | | |
| VS3F | VL5:F | | | | | | |
| VM3E | | | | | | | |
| VS3G | VL5:G | | | | | | |
| VM3F | | | | | | | |
| VS3H | VL5:H | | | | | | |
| VM3G | | | | | | | |
| | | | VL3 | VL3 | | | |
| | | VL4:A | VL3A | VL3A | | | |
| | | VL4:B1-3 | | | | | |
| | | VL4:X | VL3B | VL3B | | | |
| VS4A | VL6:A | VL4:C | | | | | |
| VM4A | | | | | | | |
| VS4B | VL6:B | | | | | | |
| VM4B | | | | | | | |
| VS4C | VL6:C | | | | | | |
| VM4C | | | | | | | |
| VS4D | VL6:D | | | | | | |
| VM4D | | | | | | | |
| VS4E | VL6:E | | | | | | |
| VM4E | | | | | | | |
| VS4F | VL6:F | | | | | | |
| VM4F | | | | | | | |
| VS4G | VL6:G | | | | | | |
| VM4G | | | | | | | |
| VS4H | VL6:H | | | | | | |
| VM4H | | | | | | | |
| VS4I | VL6:I | | | | | | |
| VM4I | | | | | | | |
| VS4J | VL6:J | | | | | | |
| VM4J | | | | | | | |
| | | VL4:D | | | | | |
| | | VL5:1-2 | | | | | |
| | | VL5:A | | | | | |
| | | VL5:X | | | | | |
| | | VL6:1-2 | | | | | |
| | | VL6:A-C | | | | | |
| | | VL6:X | | | | | |
| | | VL7:1-2 | | | | | |
| | | VL7:A | | | | | |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | VL7:X | | | | | |
| | | VL8:1-2 | | | | | |
| | | | VL4 | VL4 | | | |
| | | VL8:A | VL4A | VL4A | | | |
| | | VL8:X | VL4B | VL4B | | | |
| | | VL9 | | | | | |
| | | VL10 | | | | | |
| | | VL11:A-D | | | | | |
| | | VL11:1-2 | | | | | |
| | | VL12:1-2 | | | | | |
| | | VL12:A-B | | | | | |
| | | VL13:1 | | | | | |
| | | | VL5 | VL5 | | | |
| | | VL13:2 | VL5A | VL5A | | | |
| | | | VL5B | VL5B | | | |
| | | VL13:A-C | | | | | |
| | | VL14:1-2 | | | | | |
| | | VL14:A | | | | | |
| | | VL15:1 | | | | | |
| | | | VL6 | VL6 | | | |
| | | | VL6A | VL6A | | | |
| | | | VL6B | VL6B | | | |
| | | | VL7 | VL7 | | | |
| | | VL15:2 | VL7A | VL7A | | | |
| | | | VL7B | VL7B | | | |
| | | VL15:A | | | | | |
| | | | VL8 | VL8 | | | |
| | | | VL8A | VL8A | | | |
| | | | VL8B | VL8B | | | |
| | | VL16 | VL9:1-3 | VL9:1-3 | VL9:A-E | VL9:A-E | VL9:A-D |
| VS6A, VM6A | VLR2:A | VL18:A1-5 | VL11A:1-3 | VL11A:1-3 | VL10:A | VL10:A | VL10:A |
| VS6B, VM6B | VLR2:B | VL18:B1-5 | VL11B:1-3 | VL11B:1-3 | VL10:B | VL10:B | VL10:B |
| VS6C, VM6C | VLR2:C | VL18:C1-5 | VL11C:1-3 | VL11C:1-3 | VL10:C | VL10:C | VL10:C |
| VS6D, VM6D | VLR2:D | VL18:D1-5 | VL11D:1-3 | VL11D:1-3 | VL10:D | VL10:D | VL10:D |
| VS6E, VM6E | VLR2:E | VL18:E1-5 | VL11E:1-3 | VL11E:1-3 | VL10:E | VL10:E | VL10:E |
| VS6F, VM6F | VLR2:F | VL18:F1-5 | VL11F:1-3 | VL11F:1-3 | VL10:F | VL10:F | VL10:F |
| VS6G, VM6G | VLR2:G | VL18:G1-5 | VL11G:1-3 | VL11G:1-3 | VL10:G | VL10:G | VL10:G |
| | | | VL11H:1-3 | VL11H:1-3 | VL10:H | VL10:H | VL10:H |
| | | | | | VL10:I | VL10:I | VL10:I |
| VS7, VM7 | VLR3 | VL19:1-5 | VL12:1-3 | VL12:1-3 | VL11 | VL11 | VL11 |
| | | | | | VL12:HR | VL12:HR | VL12:HR |
| | | | | | VL12:MN | VL12:MN | VL12:MN |
| | | | | | VL12:AP | VL12:AP | VL12:AP |

Refusal/Breakoff Form

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | | ROU | ROU | ROU | ROU | ROU |
| | | | | | | RBATP | RBATP |
| RSTAT | | REF:1-5 | RR | RR | RR | RR | RR |
| | | RB:1 | RB | RB | RB | RB | RB |
| | | | RNI | RNI | | | |
| R7:1-5 | R7:1-5 | R3:1-5 | R1:1-6 | R1:1-6 | R1:1-4 | R1:1-4 | R1:1-4 |
| R8:1-5 | R8:1-5 | R4:1-5 | R2:1-6 | R2:1-6 | R2:1-4 | R2:1-4 | R2:1-4 |
| R16A:1-5 | R17:A1-5 | R2:A1-5, R25:A | R3A:1-6 | R3A:1-6 | R4A:1-4 | R4A:1-4 | R4A:1-4 |
| R16B:1-5 | R17:B1-5 | R2:B1-5, R25:B | R3B:1-6 | R3B:1-6 | R4B:1-4 | R4B:1-4 | R4B:1-4 |

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| R16C:1-5 | R17:C1-5 | R2:C1-5<br>R25:C | R3C:1-6 | R3C:1-6 | R4C:1-4 | R4C:1-4 | R4C:1-4 |
| R10A:1-5 | R9:A1-5 | R1:A1-5 | R5A:1-6 | R5A:1-6 | R5A:1-4 | R5A:1-4 | R5A:1-4 |
| R10B:1-5 | R9:B1-5 | R1:B1-5 | R5B:1-6 | R5B:1-6 | R5B:1-4 | R5B:1-4 | R5B:1-4 |
| R10C:1-5 | R9:C1-5 | R1:C1-5 | R5C:1-6 | R5C:1-6 | R5C:1-4 | R5C:1-4 | R5C:1-4 |
| R10D:1-5 | R9:D1-5 | R1:D1-5 | R5D:1-6 | R5D:1-6 | R5D:1-4 | R5D:1-4 | R5D:1-4 |
| | | R1:E1-5 | R5E:1-6 | R5E:1-6 | R5E:1-4 | R5E:1-4 | R5E:1-4 |
| R10E:1-5 | R9:E1-5 | R1:F1-5 | R5F:1-6 | R5F:1-6 | R5F:1-4 | R5F:1-4 | R5F:1-4 |
| R10F:1-5 | R9:F1-5 | R1:G1-5 | R5G:1-6 | R5G:1-6 | R5G:1-4 | R5G:1-4 | R5G:1-4 |
| | | | R5H:1-6 | R5H:1-6 | R5H:1-4 | R5H:1-4 | R5H:1-4 |
| R10G:1-5 | R9:G1-5 | R1:H1-5 | R5I:1-6 | R5I:1-6 | R5I:1-4 | R5I:1-4 | R5I:1-4 |
| R10H:1-5 | R9:H1-5 | R1:I1-5 | R5J:1-6 | R5J:1-6 | R5J:1-4 | R5J:1-4 | R5J:1-4 |
| | | | R5K:1-6 | R5K:1-6 | R5K:1-4 | R5K:1-4 | R5K:1-4 |
| | | | R5L:1-6 | R5L:1-6 | R5L:1-4 | R5L:1-4 | R5L:1-4 |
| | | | R5M:1-6 | R5M:1-6 | R5M:1-4 | R5M:1-4 | R5M:1-4 |
| R10I:1-5 | R9:I1-5 | R1:J1-5 | R5N:1-6 | R5N:1-6 | R5N:1-4 | R5N:1-4 | R5N:1-4 |
| R10J:1-5 | R9:J1-5 | R1:K1-5 | R5O:1-6 | R5O:1-6 | R5O:1-4 | R5O:1-4 | R5O:1-4 |
| | | R21 | | | | | |
| R11:1-5 | R12:1-5 | R6:1-5 | R6:1-6 | R6:1-6 | R6:1-4 | R6:1-4 | R6:1-4 |
| R13A:1-5 | R14:A1-5 | R8:A1-5 | R7A:1-6 | R7A:1-6 | R7A:1-4 | R7A:1-4 | R7A:1-4 |
| R13B:1-5 | R14:B1-5 | R8:B1-5 | R7B:1-6 | R7B:1-6 | R7B:1-4 | R7B:1-4 | R7B:1-4 |
| | | R8:C1-5 | R7C:1-6 | R7C:1-6 | R7C:1-4 | R7C:1-4 | R7C:1-4 |
| R13C:1-5 | R14:C1-5 | R8:D1-5 | R7D:1-6 | R7D:1-6 | R7D:1-4 | R7D:1-4 | R7D:1-4 |
| R13D:1-5 | R14:D1-5 | R8:E1-5 | R7E:1-6 | R7E:1-6 | R7E:1-4 | R7E:1-4 | R7E:1-4 |
| R13E:1-5 | R14:E1-5 | R8:F1-5 | R7F:1-6 | R7F:1-6 | R7F:1-4 | R7F:1-4 | R7F:1-4 |
| R13F:1-5 | R14:F1-5 | | R7G:1-6 | R7G:1-6 | R7G:1-4 | R7G:1-4 | R7G:1-4 |
| | | R8:G1-5 | R7H:1-6 | R7H:1-6 | R7H:1-4 | R7H:1-4 | R7H:1-4 |
| | | R8:H1-5 | | | | | |
| | | R8:I1-5 | R7I:1-6 | R7I:1-6 | R7I:1-4 | R7I:1-4 | R7I:1-4 |
| R13G:1-5 | R14:G1-5 | R8:J1-5 | R7J:1-6 | R7J:1-6 | R7J:1-4 | R7J:1-4 | R7J:1-4 |
| R13H:1-5 | R14:H1-5 | R8:K1-5 | R7K:1-6 | R7K:1-6 | R7K:1-4 | R7K:1-4 | R7K:1-4 |
| | | | R7L:1-6 | R7L:1-6 | R7L:1-4 | R7L:1-4 | R7L:1-4 |
| | | | R8:1-6 | R8:1-6 | R8:1-4 | R8:1-4 | R8:1-4 |
| | | | R9:1-6 | R9:1-6 | R9:1-4 | R9:1-4 | R9:1-4 |
| | | R22:A | R10M:1-6 | R10M:1-6 | R10M:1-4 | R10M:1-4 | R10M:1-4 |
| | | R22:B | R10Q:1-6 | R10Q:1-6 | R10Q:1-4 | R10Q:1-4 | R10Q:1-4 |
| | | R22:C | R10L:1-6 | R10L:1-6 | R10L:1-4 | R10L:1-4 | R10L:1-4 |
| | | R22:D | R10S:1-6 | R10S:1-6 | R10S:1-4 | R10S:1-4 | R10S:1-4 |
| R9:1-5 | R11:1-5 | R7:1-5 | R11:1-6 | R11:1-6 | R11:1-4 | R11:1-4 | R11:1-4 |
| R5:1-5 | R5:1-5 | R11:1-5 | R12:1-6 | R12:1-6 | R12:1-4 | R12:1-4 | R12:1-4 |
| R6:1-5 | R6:1-5 | R12:1-5 | R13:1-6 | R13:1-6 | R13:1-4 | R13:1-4 | R13:1-4 |
| R14:1-5 | R15:1-5 | R9:1-5<br>R23 | R14:1-6 | R14:1-6 | R14:1-4 | R14:1-4 | R14:1-4 |
| R4:1-5 | R4:1-5 | R13:1-5 | R16:1-6 | R16:1-6 | R16:1-4 | R16:1-4 | R16:1-4 |
| R17:1-5 | R18:1-5 | R14:1-5<br>R26 | R17:1-6 | R17:1-6 | R17:1-4 | R17:1-4 | R17:1-4 |
| R18A:1-5 | R19:A1-5 | R15:A1-5 | R18A:1-6 | R18A:1-6 | R18A:1-4 | R18A:1-4 | R18A:1-4 |
| R18B:1-5 | R19:B1-5 | R15:B1-5 | R18B:1-6 | R18B:1-6 | R18B:1-4 | R18B:1-4 | R18B:1-4 |
| R18C:1-5 | R19:C1-5 | R15:C1-5 | R18C:1-6 | R18C:1-6 | R18C:1-4 | R18C:1-4 | R18C:1-4 |
| R2:M1-5 | R2:M1-5 | R17:M1-5<br>R28:M | R20MO:1-6 | R20MO:1-6 | R20M:1-4 | R20M:1-4 | R20M:1-4 |
| R2:D1-5 | R2:D1-5 | R17:D1-5<br>R28:D | R20DY:1-6 | R20DY:1-6 | R20D:1-4 | R20D:1-4 | R20D:1-4 |
| R2:Y1-5 | R2:Y1-5 | R17:Y1-5<br>R28:Y | | | | | |
| R3:HR1-5 | R3:H1-5 | R18:H1-5<br>R29:H | R21HR:1-6 | R21HR:1-6 | R21HR:1-4 | R21HR:1-4 | R21HR:1-4 |
| R3:MN1-5 | R3:M1-5 | R18:M1-5<br>R29:M | R21MN:1-6 | R21MN:1-6 | R21MN:1-4 | R21MN:1-4 | R21MN:1-4 |
| R3:AP1-5 | R3:A1-5 | R18:A1-5<br>R29:A | R21AP:1-6 | R21AP:1-6 | R21AP:1-4 | R21AP:1-4 | R21AP:1-4 |
| R1:1-5 | R1:1-5 | R19:1-5<br>R27 | R22A:1-6<br>R22B:1-6<br>RN1<br>RN2A:1-6<br>RN2B:1-6 | R22A:1-6<br>R22B:1-6<br>RN1<br>RN2A:1-6<br>RN2B:1-6 | R22:1-4 | R22:1-4 | R22:1-4 |

Data Retrieval Form

| LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|
| | | | | | DRIID | DRIID | DRIID |
| | | | | | DRDID:1-2 | DRDID | DRDID |
| | | | | | DRRF | DRRF | DRRF |
| | | | | | | | DRRC |
| | | | | | DRA:1-7 | DRA:1-7 | DRA:1-7 |
| | | | | | DRR:1-7 | DRR:1-7 | DRR:1-7 |
| | | | | | DRTY:1-7 | DRTY:1-7 | DRTY:1-7 |
| | | | | | DRMO:1-7 | DRMO:1-7 | DRMO:1-7 |
| | | | | | DRDA:1-7 | DRDA:1-7 | DRDA:1-7 |
| | | | | | DR1:HR | DR1:HR | DR1:HR |
| | | | | | DR1:MN | DR1:MN | DR1:MN |
| | | | | | DR1:AP | DR1:AP | DR1:AP |
| | | | | | DR2 | DR2 | DR2 |
| | | | | | DR3 | DR3 | DR3 |
| | | | | | DR4:1-5 | DR4:1-5 | DR4:1-4 |
| | | | | | DR5 | DR5 | DR5 |
| | | | | | | | DR5A |
| | | | | | DR6:1-9 | DR6:1-9 | DR6:1-9 |
| | | | | | DR7 | DR7 | DR7 |
| | | | | | DR8:HR | DR8:HR | DR8:HR |
| | | | | | DR8:MN | DR8:MN | DR8:MN |
| | | | | | DR8:AP | DR8:AP | DR8:AP |

## HOUSEHOLD SURVEY INDEX

Module A. On TH11, variable names ending with "T" pertain to tenants and homeowners; a terminal "M" signifies a mobile home resident.

Modules B and C. Both modules have separate sections for tenants (T), homeowners (H), mobile home residents (M), and lodgers (L). The second letter of the variable name indicates the type of respondent addressed. For example, "CM4" denotes the fourth variable in the mobile home resident version of module C.

TH11 departs from the foregoing pattern in the following ways:

- Respondent type is indicated at the end of the variable, as in "C4M."[5] Variables representing parts of a question thus have a terminal letter, as in "B130:A-ET," signifying the five variables B130:AT through B130:ET.
- Tenants and homeowners were addressed in the same section of the instrument. The variable names pertaining to that section bear a terminal "T" and are listed twice because they correspond to both T and H questions in the other files. To avoid clutter, these mass repetitions are not footnoted as are the more isolated cases.

Module D. Variables pertaining to prior-wave respondents have no equivalents on the wave 1 files, so the TH11 and TH12 variables are matched with postbaseline variables pertaining to first-time respondents. On TH12, the prefix "DL" indicates the long version that records the five-year mobility history of first-time respondents; "DS," the short version for the past-year mobility history of prior-wave respondents.

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[5] In the TH11 codebook, the module B and C questions lack a terminal letter indicating respondent type.

Modules E and F. On TH12, the prefixes "EL" and "FL" indicate the long versions that record the five-year employment history of first-time respondents; "ES" and "FS" signify the short versions for the past-year employment history of prior-wave respondents. Because questions in the long and short versions are similar, they are bracketed in the index.

Modules A through H

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| A2T } A2M } | A2 | A1 | A1 | A1 | | | |
| | | A4* | A2 | A2 | A1* | A1* | A1* |
| | | A5 | | | | | |
| | | | A2:A | A2:A | A1:A* | A1:A* | A1:A* |
| | | | | | A1:B | A1:B | A1:B |
| | | | A2:B | A2:B | A1:C* | A1:C* | A1:C* |
| | | | A2:C | A2:C | A1:D* | A1:D* | A1:D* |
| | | A4* | A3 | A3 | A2* | A2* | A2* |
| | | | A3:A | A3:A | A2:A* | A2:A* | A2:A* |
| | | | | | A2:B | A2:B | A2:B |
| | | | | | A2:C | A2:C | A2:C |
| | | | A3:B1 | A3:B1 | A2:C1* | A2:C1* | A2:C1* |
| | | | A3:C | A3:C | A2:D* | A2:D* | A2:D* |
| | | | A3:E | A3:E | A4* | A4* | A4* |
| | | | A4 | A4 | A3 | A3 | A3 |
| | | A2* | A6 | A6 | A6* | A6* | A6* |
| | | A4* | A7 | A7 | A1* | A1* | A1* |
| | | | A7:A | A7:A | A1:A* | A1:A* | A1:A* |
| | | | A7:B | A7:B | A1:C* | A1:C* | A1:C* |
| | | | A7:C | A7:C | A1:D* | A1:D* | A1:D* |
| | | A4* | A8 | A8 | A2* | A2* | A2* |
| | | | A8:A | A8:A | A2:A* | A2:A* | A2:A* |
| | | | A8:B1 | A8:B1 | A2:C1* | A2:C1* | A2:C1* |
| | | | A8:C | A8:C | A2:D* | A2:D* | A2:D* |
| | | | A8:E | A8:E | A4* | A4* | A4* |
| | | A2* | A9 | A9 | A6* | A6* | A6* |
| | | A4* | A10 | A10 | A1* | A1* | A1* |
| | | | A10:A | A10:A | A1:A* | A1:A* | A1:A* |
| | | | A10:B | A10:B | A1:C* | A1:C* | A1:C* |
| | | | A10:C | A10:C | A1:D* | A1:D* | A1:D* |
| | | A4* | A11 | A11 | A2* | A2* | A2* |
| | | | A11:A | A11:A | A2:A* | A2:A* | A2:A* |
| | | | A11:B1 | A11:B1 | A2:C1* | A2:C1* | A2:C1* |
| | | | A11:C | A11:C | A2:D* | A2:D* | A2:D* |
| | | | A12:A | A12:A | | | |
| | | | A12:B | A12:B | | | |
| | | A6 | { A13:A | A13:A | A8 | A8 | A8 |
| | | | { A13:B | A13:B | A9 | A9 | A9 |
| | | | A14 | A14 | A10 | A10 | A10 |
| | A2C | A7 | | | | | |
| AHRBG | AHRBG | AHRBG | A15:HR | A15:HR | A11:HR | A11:HR | A11:HR |
| AMNBG | AMNBG | AMNBG | A15:MN | A15:MN | A11:MN | A11:MN | A11:MN |
| AAPBG | AAPBG | AAMPM | A15:AP | A15:AP | A11:AP | A11:AP | A11:AP |
| | A3 | A8 | A16 | A16 | | | |
| | | | A16:A | A16:A | | | |
| | | | A16:B | A16:B | A12:A | A12:A | A12:A |
| | | | A16:C | A16:C | A12:B | A12:B | |
| A3T } | | | { A17 | A17 | A13 | A13 | A13 |
| A7T } | A3A | A9 | { A17:A | A17:A | A13:A | A13:A | A13:A |
| | | | { A17:B | A17:B | A13:B | A13:B | A13:B |
| | A4 | A10 | A18 | A18 | A14 | A14 | A14 |
| A2L | A7 | A13 | A20 | A20 | A16 | A16 | A16 |
| | A7A | A14 | | | | | |
| | A7B | A15 | | | | | |
| A8T } A3M } | A8 | A16 | A21 | A21 | A17 | A17 | A17 |
| | | | A22 | A22 | A18 | A18 | A18 |
| | A9 | A17 | A22:AB | A22:AB | A18:A | A18:A | A18:A |
| A9T } A4M } | A9A | A18 | A23 | A23 | A19 | A19 | A19 |
| | A11 | A20 | A25 | A25 | A21 | A21 | A21 |
| | A11A | A21 | A26 | A26 | A21:A | A21:A | A21:A |
| | | | A26:A | A26:A | A12:C | A12:C | A12:B |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B1M | A18 | A32 | A27 | A27 | A22 | A22 | A22 |
| B1T | A11B | A22 | A28 | A28 | A23 | A23 | A23 |
| | | | A28:A | A28:A | | | |
| | | | A28:B | A28:B | A23:A | A23:A | A23:A |
| | | | A28:C | A28:C | A24 | A24 | A24 |
| | | | A28:D | A28:D | A29 | A29 | A29 |
| B1AT | A12 | A23 | | | | | |
| B1BT | A13 | A24 | | | | | |
| B1CT | A14 | A25 | | | | | |
| | A15 | A26 | | | | | |
| B1DT | A16 | A27 | | | | | |
| B1ET | A17 | A28 | | | | | |
| | | | A29 | A29 | A25* | A25* | A25* |
| | | | A30 | A30 | A26* | A26* | A26* |
| | | | A32 | A32 | A28* | A28* | A28* |
| | | | A33 | A33 | | | |
| | | | A34:M | A34:M | | | |
| | | | A34:Y | A34:Y | | | |
| | | | A35 | A35 | | | |
| | | | A36:M | A36:M | A30:M* | A30:M* | A30:M* |
| | | | A36:Y | A36:Y | A30:Y* | A30:Y* | A30:Y* |
| | | | A37 | A37 | A37* | A37* | A37* |
| | | | A38 | A38 | | | |
| | | | A40 | A40 | | | |
| | | | A41 | A41 | A25* | A25* | A25* |
| | | | A42 | A42 | A26* | A26* | A26* |
| | | | A44 | A44 | A28* | A28* | A28* |
| | | | A45 | A45 | | | |
| | | | A46:M | A46:M | | | |
| | | | A46:Y | A46:Y | | | |
| | | | A47 | A47 | | | |
| | | | A48:M | A48:M | A30:M* | A30:M* | A30:M* |
| | | | A48:Y | A48:Y | A30:Y* | A30:Y* | A30:Y* |
| | | | A49 | A49 | A37* | A37* | A37* |
| | | | A50 | A50 | | | |
| | | | A52 | A52 | | | |
| | | | A53 | A53 | A31 | A31 | A31 |
| | | | A54 | A54 | A32 | A32 | A32 |
| | | | A55 | A55 | A33 | A33 | A33 |
| | | | A57 | A57 | A35 | A35 | A35 |
| | | | A58:M | A58:M | | | |
| | | | A58:Y | A58:Y | | | |
| | | | A59:M | A59:M | A36:M | A36:M | A36:M |
| | | | A59:Y | A59:Y | A36:Y | A36:Y | A36:Y |
| | | | A60 | A60 | A37* | A37* | A37* |
| | | | A61 | A61 | | | |
| | | | A63 | A63 | | | |
| | | | A64:A | A64:A | | | |
| | | | A64:B | A64:B | A38 | A38 | A38 |
| | | | A65 | A65 | A39 | A39 | A39 |
| | | | A65:A | A65:A | A39:A | A39:A | A39:A |
| | | A29 | | | | | |
| | | A30 | A66 | A66 | A40 | A40 | A40 |
| | | A31 | A67 | A67 | A41 | A41 | A41 |
| B1AM | A19 | A33 | | | | | |
| B1BM | A20 | A34 | | | | | |
| B1CM | A21 | A35 | | | | | |
| B1DM | A22 | A36 | | | | | |
| B1EM | A23 | A37 | | | | | |
| B1FM | A24 | A38 | | | | | |
| | | | A68 | A68 | A41:A | A41:A | A41:A |
| B2M | A25 | A39 | A69 | A69 | A42 | A42 | A42 |
| B2AM | A26 | A40 | A70 | A70 | A43 | A43 | A43 |
| B2BM | A27 | A41 | A71 | A71 | A44 | A44 | A44 |
| B2CM | A28 | A42 | A72 | A72 | A45 | A45 | A45 |
| | A29 | A43 | A73 | A73 | A46 | A46 | A46 |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | A74:HR | A74:HR | A47:HR | A47:HR | A47:HR |
| | | | A74:MN | A74:MN | A47:MN | A47:MN | A47:MN |
| | | | A74:AP | A74:AP | A47:AP | A47:AP | A47:AP |
| | | | A75:C3R | A75:C3R | A48 | A48 | A48 |
| AMST | ASTA | ASTAT | A75:MS | A75:MS | | | |
| | | | BT1:HR | BT1:HR | BT1:HR | BT1:HR | BT1:HR |
| | | | BT1:MN | BT1:MN | BT1:MN | BT1:MN | BT1:MN |
| | | | BT1:AP | BT1:AP | BT1:AP | BT1:AP | BT1:AP |
| | | | BT2 | BT2 | BT2 | BT2 | BT2 |
| B2T | BT1 | BT1 | BT3 | BT3 | BT3 | BT3 | BT3 |
| B3:AT | BT2:A | BT2:A | BT4:A | BT4:A | BT4:A | BT4:A | BT4:A |
| B3:BT | BT2:B | BT2:B | BT4:B | BT4:B | BT4:B | BT4:B | BT4:B |
| B3:CT | BT2:C | BT2:C | BT4:C | BT4:C | BT4:C | BT4:C | BT4:C |
| B3:DT | BT2:D | BT2:D | BT4:D | BT4:D | BT4:D | BT4:D | BT4:D |
| B3:ET | BT2:E | BT2:E | BT4:E | BT4:E | BT4:E | BT4:E | BT4:E |
| | BT2:F | BT2:F | BT4:F | BT4:F | BT4:F | BT4:F | BT4:F |
| B3:FT | BT2:G | BT2:G | BT4:G | BT4:G | BT4:G | BT4:G | BT4:G |
| B3:GT | BT2:H | BT2:H | BT4:H | BT4:H | BT4:H | BT4:H | BT4:H |
| B3:HT | BT2:J | BT2:I | BT4:I | BT4:I | BT4:I | BT4:I | BT4:I |
| B3:IT | BT2:K | | | | | | |
| | | BT2:J | BT4:J | BT4:J | BT4:J | BT4:J | BT4:J |
| B3:JT | BT2:L | BT2:K1-2 | BT4:K1-2 | BT4:K1-2 | BT4:K1-2 | BT4:K1-2 | BT4:K1-2 |
| B3:KT | BT2:M | | | | | | |
| | | BT3 | BT5 | BT5 | BT5 | BT5 | BT5 |
| | | BT4 | BT6 | BT6 | BT6 | BT6 | BT6 |
| | | BT4A-E | BT6A-E | BT6A-E | BT6A-E | BT6A-E | BT6A-E |
| | | BT5 | BT7 | BT7 | BT7 | BT7 | BT7 |
| | | BT5A:1-2 | BT7A:1-2 | BT7A:1-2 | BT7A:1-2 | BT7A:1-2 | BT7A:1-2 |
| | | BT6 | BT8 | BT8 | BT8 | BT8 | BT8 |
| | | BT6A:1-3 | BT8A:1-3 | BT8A:1-3 | BT8A:1-2 | BT8A:1-2 | BT8A:1-2 |
| B4T | BT3 | BT7 | BT9 | BT9 | BT9 | BT9 | BT9 |
| B4AT | BT4 | BT7A | BT10 | BT10 | | | |
| | BT5 | BT8 | BT11 | BT11 | BT10 | BT10 | BT10 |
| B5T | BT5A | BT9 | BT12 | BT12 | BT11 | BT11 | BT11 |
| | | BT12 | BT12B | BT12B | BT11B | BT11B | BT11B |
| B6T | BT6 | BT10 | BT13 | BT13 | BT12 | BT12 | BT12 |
| | | | BT13B | BT13B | BT12B | BT12B | BT12B |
| | | BT11 | | | | | |
| B7T | BT7 | BT13 | BT14 | BT14 | BT13 | BT13 | BT13 |
| B8:AT | BT8:A | BT14:A | BT15:A | BT15:A | | | |
| B8:BT | BT8:B | BT14:B | BT15:B | BT15:B | | | |
| B8:CT | BT8:C | BT14:C | BT15:C | BT15:C | | | |
| B8:DT | BT8:D | BT14:D | BT15:D | BT15:D | | | |
| B8:ET | BT8:E | BT14:E | BT15:E | BT15:E | | | |
| | BT8:F | BT14:F | BT15:F | BT15:F | | | |
| | BT8:G | BT14:G | BT15:G | BT15:G | | | |
| | BT8:H | BT14:H | BT15:H | BT15:H | | | |
| | BT8:I | BT14:I | BT15:I | BT15:I | | | |
| B8:FT | BT8:J | BT14:J | BT15:J | BT15:J | | | |
| | BT8:K | BT14:J1 | | | | | |
| | BT9 | BT15 | BT16 | BT16 | | | |
| B9:AT | BT9Y:A | BT17:A | BT17:A | BT17:A | | | |
| B9:BT | BT9Y:B | BT17:B | BT17:B | BT17:B | | | |
| B9:CT | BT9Y:C | BT17:C | BT17:C | BT17:C | | | |
| B9:DT | BT9Y:D | BT17:D | BT17:D | BT17:D | | | |
| B9:ET | BT9Y:E | BT17:E | BT17:E | BT17:E | | | |
| | BT9Y:F | BT17:F | BT17:F | BT17:F | | | |
| | BT9Y:G | BT17:G | BT17:G | BT17:G | | | |
| | BT9Y:H | BT17:H | BT17:H | BT17:H | | | |
| | BT9Y:I | BT17:I | BT17:I | BT17:I | | | |
| B9:FT | BT9Y:J | BT17:J | BT17:J | BT17:J | | | |
| B9:GT | | | | | | | |
| B10T | BT10 | BT18 | BT19 | BT19 | BT14 | BT14 | BT14 |
| B11T | BT11 | | | | | | |
| B12T | BT12 | | | | | | |
| B13T | BT13 | | | | | | |
| B14T | BT14 | BT19 | BT20 | BT20 | | | |
| B15T | BT15 } | BT20 | BT21 | BT21 | BT15 | BT15 | BT15 |
| B16T | BT16 } | | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B17:AT | BT17 | | | | | | |
| B17:BT | BT17:A | | | | | | |
| B17:CT | BT17:B | | | | | | |
| B17:DT | BT17:C | | | | | | |
| B17:ET | BT17:D | | | | | | |
| B17:FT | BT17:E | | | | | | |
| B17:GT | BT17:F | | | | | | |
| | BT17:G | | | | | | |
| | BT17:H | | | | | | |
| | BT17:I | | | | | | |
| | BT17:J | | | | | | |
| B17:HT | BT17:K | | | | | | |
| B18:1T | BT20B:1 | | | | | | |
| B18:2T | BT18:1 | BT21:A | BT22:A | BT22:A | BT16:A | BT16:A | BT16:A |
| B18:3T | BT18:3 | BT21:B | BT22:B | BT22:B | BT16:B | BT16:B | BT16:B |
| | | | | | | | BT16:C |
| B18:4T | BT18:4 | BT21:C | BT22:C | BT22:C | BT16:C | BT16:C | BT16:D |
| B18:5T | BT18:5 | BT21:D | BT22:D | BT22:D | BT16:D | BT16:D | BT16:E |
| B18:6T | BT18:6 | BT21:E | BT22:E | BT22:E | BT16:E | BT16:E | BT16:F |
| B18:7T | BT21:1 | BT21:F | BT22:F | BT22:F | BT16:F | BT16:F | BT16:G |
| B18A:7T | BT21A:1 | | | | | | |
| B18:8T | BT21:2 | BT21:G | BT22:G | BT22:G | BT16:G | BT16:G | BT16:H |
| B18A:8T | BT21A:2 | | | | | | |
| B19:2T | BT19:1 | BT22:A | BT23:A | BT23:A | BT17:A | BT17:A | BT17:A |
| | BT19:2 | | | | | | |
| B19:3T | BT19:3 | BT22:B | BT23:B | BT23:B | BT17:B | BT17:B | BT17:B |
| B19:4T | BT19:4 | BT22:C | BT23:C | BT23:C | BT17:C | BT17:C | BT17:D |
| B19:5T | BT19:5 | BT22:D | BT23:D | BT23:D | BT17:D | BT17:D | BT17:E |
| B19:6T | BT19:6 | BT22:E | BT23:E | BT23:E | BT17:E | BT17:E | BT17:F |
| B19:7T | BT21B:1 | BT22:F | BT23:F | BT23:F | BT17:F | BT17:F | BT17:G |
| B19:8T | BT21B:2 | BT22:G | BT23:G | BT23:G | BT17:G | BT17:G | BT17:H |
| | | BT23 | BT24 | BT24 | BT18 | BT18 | BT18 |
| B20:1T | BT20:2 | | | | | | |
| B20A:1T | BT20A:1 | | | | | | |
| B20:2T | BT20:1 | BT24:A | BT25:A | BT25:A | BT19:A | BT19:A | BT19:A |
| B20:3T | BT20:3 | BT24:B | BT25:B | BT25:B | BT19:B | BT19:B | BT19:B |
| | | | | | | | BT19:C |
| B20:4T | BT20:4 | BT24:C | BT25:C | BT25:C | BT19:C | BT19:C | BT19:D |
| B20:5T | BT20:5 | BT24:D | BT25:D | BT25:D | BT19:D | BT19:D | BT19:E |
| B20:6T | BT20:6 | BT24:E | BT25:E | BT25:E | BT19:E | BT19:E | BT19:F |
| B20:7T | BT21C:1 | BT24:F | BT25:F | BT25:F | BT19:F | BT19:F | BT19:G |
| B20:8T | BT21C:2 | BT24:G | BT25:G | BT25:G | BT19:G | BT19:G | BT19:H |
| | | | | | BT20 | BT20 | BT20 |
| | | | | | BT21 | BT21 | BT21 |
| B21T | BT22 | | BT26 | BT26 | BT22 | BT22 | BT22 |
| B22T | BT22A | BT25 | BT27 | BT27 | BT23 | BT23 | BT23 |
| B23T | BT23 | | | | | | |
| B24T | BT24 | BT26 | BT28 | BT28 | BT24 | BT24 | BT24 |
| B25T | BT25 | BT27 | BT29 | BT29 | BT25 | BT25 | BT25 |
| B26T | BT26 | | | | | | |
| B31T | BT27 | BT28 | BT30 | BT30 | BT26 | BT26 | BT26 |
| B32T | BT28 | BT29 | BT31 | BT31 | BT27 | BT27 | BT27 |
| B34T | BT29 | BT30 | BT32 | BT32 | BT28 | BT28 | BT28 |
| B27T | BT30 | BT31 | | | | | |
| B28T | BT31 | | | | | | |
| B29T | BT32 | BT32 | BT33 | BT33 | BT29 | BT29 | BT29 |
| B30T | BT33 | BT32A | BT33A | BT33A | BT29A | BT29A | BT29A |
| B33T | BT34 | BT33 | | | | | |
| B35T | BT35 | BT34 | BT34 | BT34 | | | |
| B36T | BT36 | BT35 | BT35 | BT35 | BT30 | BT30 | BT30 |
| B37T | BT37 | | | | | | |
| B38T | BT38 | BT36 | BT36 | BT36 | BT31 | BT31 | BT31 |
| B39T | BT39 | | | | | | |
| B40T | BT40 | | BT37 | BT37 | | | |
| B41T | BT41 | BT37 | BT38 | BT38 | BT32 | BT32 | BT32 |
| B42T | { BT42 } | BT38 | BT39 | BT39 | BT33 | BT33 | BT33 |
| | { BT42:A } | | | | | | |
| B62T | BT61 | BT58 | BT40 | BT40 | BT34 | BT34 | BT34 |
| B43T | BT43 | BT39 | BT41 | BT41 | BT35 | BT35 | BT35 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B44T | BT44 | BT40 | BT42 | BT42 | BT36 | BT36 | BT36 |
| B45T | BT45 } | BT41 | BT43 | BT43 | BT37 | BT37 | BT37 |
| B46T | BT46 } | | | | | | |
| B47T | BT47 | BT42 | BT44 | BT44 | BT38 | BT38 | BT38 |
| | | BT43 | BT44A | BT44A | BT38A | BT38A | BT38A |
| | | BT44 | | | | | |
| | | BT45 | | | | | |
| B48T | BT48 | BT46 | BT45 | BT45 | BT39 | BT39 | BT39 |
| | | BT47 | BT45A | BT45A | BT39A | BT39A | BT39A |
| B50T | BT49 | | BT46 | BT46 | | | |
| B51T | { BT50A } | | BT47 | BT47 | | | |
| | { BT50B } | | | | | | |
| B52T | BT51 | | BT48 | BT48 | | | |
| B70T | BT69 | BT71 | BT49 | BT49 | BT40 | BT40 | BT40 |
| B71:1-2T | BT70:1-2 | BT72:1-2 | BT50:1-2 | BT50:1-2 | BT41:1-2 | BT41:1-2 | BT41:1-2 |
| | BT74 | BT73 | BT51 | BT51 | BT41A | BT41A | BT41A |
| B72T | BT71 | BT74 | BT52 | BT52 | | | |
| | | BT75 | BT52A | BT52A | | | |
| | | BT76 | | | | | |
| | | BT77 | | | | | |
| B73T | BT72 | BT78 | | | | | |
| | | BT79 | | | | | |
| B74T | BT73 | BT80 | | | | | |
| | | BT81 | | | | | |
| B77T | BT75 | BT82 | BT53 | BT53 | | | |
| | BT78 | | | | | | |
| B78:AT | BT78:A | | BT54 | BT54 | | | |
| B78:BT | BT78:B | | | | | | |
| B75:AT | BT76:A | BT83 | BT55 | BT55 | | | |
| B75:BT | BT76:B | | | | | | |
| B76:AT | BT77:A } | BT84 | BT56 | BT56 | | | |
| B79:AT | BT79:A } | | | | | | |
| B76:BT | BT77:B | | | | | | |
| B79:BT | BT79:B | | | | | | |
| B80T | BT80 | BT94 | | | | | |
| B81T | BT81 | BT85 | BT57 | BT57 | | | |
| | | | BT57A | BT57A | | | |
| B82T | BT82 | | | | | | |
| B83T | BT83 | | | | | | |
| B84T | BT84 | BT86 | BT58 | BT58 | BT42 | BT42 | BT42 |
| | | BT87 | BT58A | BT58A | BT42A | BT42A | BT42A |
| | | BT88:1-3 | { BT59:A1-4 | BT59:A1-4 | BT43:1-4 | BT43:1-4 | BT43:1-4 |
| | | | { BT59:B1-4 | BT59:B1-4 | BT44:1-4 | BT44:1-4 | BT44:1-4 |
| | | | BT59:C1-4 | BT59:C1-4 | | | |
| | | | | | BT45 | BT45 | BT45 |
| | | | | | BT46:1-4 | BT46:1-4 | BT46:1-4 |
| | | | | | BT47 | BT47 | BT47 |
| | | BT89 | BT59:D | BT59:D | BT48 | BT48 | BT48 |
| B85:A-BT | BT85:A-B | | | | | | |
| B86T | BT86 | | | | | | |
| B87T | BT87 | | | | | | |
| B88T | BT88 | | | | | | |
| B89T | BT89 | BT90 | BT60 | BT60 | BT49 | BT49 | BT49 |
| | | | BT60A | BT60A | | | |
| | | | | | BT50 | BT50 | BT50 |
| | | | | | BT50A | BT50A | BT50A |
| B90T | BT90 | BT91 | | | | | |
| | BT90A | BT92 | BT61 | BT61 | BT51 | BT51 | BT51 |
| B91T | BT91 | | | | | | |
| B92T | BT92 | | | | | | |
| B93T | BT93 | BT93 | BT62 | BT62 | BT52 | BT52 | BT52 |
| | | | BT62A | BT62A | BT52A | BT52A | BT52A |
| B94T | BT94 | BT95 | BT63 | BT63 | BT53 | BT53 | BT53 |
| | | | BT63A | BT63A | BT53A | BT53A | BT53A |
| B95T | BT95 | | | | | | |
| B96T | BT96 | BT96 | | | | | |
| B97T | BT97 | BT97 | BT64 | BT64 | BT54 | BT54 | BT54 |
| | | | BT64A | BT64A | BT54A | BT54A | BT54A |
| B98T | BT98 | | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B99T | BT99 | BT98 | BT65 | BT65 | | | |
| B100T | BT100 | BT99 | | | | | |
| B101T | BT101 | BT100 | BT66 | BT66 | BT55 | BT55 | BT55 |
| B102T | BT102 | | BT66A | BT66A | BT55A | BT55A | BT55A |
| | | | BT66B | BT66B | BT55B | BT55B | BT55B |
| B103T | BT103 | BT101 | BT67 | BT67 | | | |
| B104T | BT104 | | BT67A | BT67A | | | |
| | | | BT67B | BT67B | | | |
| B105T | BT105 | | | | | | |
| B106T | BT106 | | BT68 | BT68 | | | |
| B107T | BT107 | | | | | | |
| B108T | BT108 | | | | | | |
| B109T | BT109 | BT102 | | | | | |
| B110T | BT110 | | | | | | |
| B111T | BT111 | BT103 | | | | | |
| B112T | BT112 | | | | | | |
| B113T | BT113 | BT104 | | | | | |
| B114:AT | BT114:A | BT105:A | BT69A | BT69A | | | |
| B114:BT | BT114:B | BT105:B | BT69B | BT69B | BT56 | BT56 | BT56 |
| | | | | | BT56A | BT56A | BT56A |
| | | | | | BT56B | BT56B | BT56B |
| B114:C1T | BT114:C1 | BT105:C | BT69C | BT69C | | | |
| B114:C2-3T | BT114:C2-3 | | | | | | |
| B114:D1T | BT114:D1 | BT105:D | BT69D | BT69D | | | |
| B114:D2-3T | BT114:D2-3 | | | | | | |
| B114:ET | BT114:E | BT105:G | BT69E | BT69E | | | |
| B114:FT | BT114:F | | BT69F | BT69F | BT57 | BT57 | BT57 |
| | | | | | BT57A | BT57A | BT57A |
| | | | | | BT57B | BT57B | BT57B |
| B114:GT | BT114:G | BT105:E | BT69G | BT69G | BT58 | BT58 | BT58 |
| | | | | | BT58A | BT58A | BT58A |
| | | | | | BT58B | BT58B | BT58B |
| B114:HT | BT114:H | BT105:F | BT69H | BT69H | BT59 | BT59 | BT59 |
| | | | | | BT59A | BT59A | BT59A |
| | | | | | BT59B | BT59B | BT59B |
| B114:IT | BT114:I | | BT69I | BT69I | BT60 | BT60 | BT60 |
| | | | | | BT60A | BT60A | BT60A |
| | | | | | BT60B | BT60B | BT60B |
| B114:JT | BT114:J | BT105:H | BT69J | BT69J | BT61 | BT61 | BT61 |
| | | | | | BT61A | BT61A | BT61A |
| | | | | | BT61B | BT61B | BT61B |
| B114:KT | BT114:K | BT105:I | | | | | |
| B114:LT | BT114:L | BT105:J | | | | | |
| B114:MT | BT114:M | BT105:K | BT69K | BT69K | BT62 | BT62 | BT62 |
| | | | | | BT62A | BT62A | BT62A |
| | | | | | BT62B | BT62B | BT62B |
| | | | BT70 | BT70 | BT63 | BT63 | BT63 |
| B118T | BT118 | | | | | | |
| B119T | BT119 | | | | | | |
| B120T | BT120 | | | | | | |
| B121T | BT121 | | | | | | |
| B122T | BT122 | | | | | | |
| | | BT106 | | | | | |
| B123T | BT123 | BT107 | BT71 | BT71 | BT64 | BT64 | BT64 |
| B124T | BT124 | | | | | | |
| B125T | BT125 | | | | | | |
| B126T | BT126 | BT112 | BT72 | BT72 | | | |
| B127T | BT127 | | BT73 | BT73 | BT85* | BT85* | BT85* |
| | | BT113 | | | | | |
| | | | BT75 | BT75 | BT87* | BT87* | BT87* |
| | | | BT75A | BT75A | BT87A* | BT87A* | BT87A* |
| B128:A-ET | BT128:A-E1 | BT114:A-F | BT74:1-6 | BT74:1-6 | BT86:1-4* | BT86:1-4* | BT86:1-4* |
| | | | BT76:1-6 | BT76:1-6 | BT88:1-4* | BT88:1-4* | BT88:1-4* |
| | | | BT77:1-6 | BT77:1-6 | | | |
| | BT128AA-E2 | | | | | | |
| B129:A-ET | BT129:A-E3 | | | | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B130:A-ET | BT130:A-E4 | | | | | | |
| B131T | BT131 | BT115 | BT78 | BT78 | | | |
| B132T | BT132 | | BT79 | BT79 | BT85* | BT85* | BT85* |
| | | BT116 | | | | | |
| | | | BT81 | BT81 | BT87* | BT87* | BT87* |
| | | | BT81A | BT81A | BT87A* | BT87A* | BT87A* |
| B133:A-ET | BT133:A-E1 | BT117:A-F | BT80:1-6 | BT80:1-6 | BT86:1-4* | BT86:1-4* | BT86:1-4* |
| | | | BT82:1-6 | BT82:1-6 | BT88:1-4* | BT88:1-4* | BT88:1-4* |
| | | | BT83:1-6 | BT83:1-6 | | | |
| | BT133A-E2 | | | | | | |
| B134:A-ET | BT134:A-E3 | | | | | | |
| B135:A-ET | BT135:A-E4 | | | | | | |
| B49T | | BT48 | BT84 | BT84 | BT65 | BT65 | BT65 |
| | | BT49 | BT85 | BT85 | BT66 | BT66 | BT66 |
| | | BT49:A1-3 | BT85:A1-3 | BT85:A1-3 | BT66:A1-4 | BT66:A1-4 | BT66:A1-4 |
| | | BT50 | BT86 | BT86 | | | |
| B53T | | BT51 | BT87 | BT87 | BT68 | BT68 | BT68 |
| B54T | BT52 } | BT52 | BT88 | BT88 | BT69 | BT69 | BT69 |
| B55T | BT53 } | | | | | | |
| B56:1T | BT54:1 | BT53:1 | BT89:1 | BT89:1 | BT70 | BT70 | BT70 |
| B57:1T | BT54A:1 | | | | | | |
| B58A:1T | BT55A:1 | BT53:A1 | BT89:A1 | BT89:A1 | BT70A | BT70A | BT70A |
| B58B:1T | BT55B:1 | | | | | | |
| B56:2T | BT54:2 | BT53:2 | BT89:2 | BT89:2 | | | |
| B57:2T | BT54A:2 | | | | | | |
| B58A:2T | BT55A:2 | BT53:A2 | BT89:A2 | BT89:A2 | | | |
| B58B:2T | BT55B:2 | | | | | | |
| B56:3T | BT54:3 | BT53:3 | BT89:3 | BT89:3 | BT71 | BT71 | BT71 |
| B57:3T | BT54A:3 | | | | | | |
| B58A:3T | BT55A:3 | BT53:A3 | BT89:A3 | BT89:A3 | BT71A | BT71A | BT71A |
| B58B:3T | BT55B:3 | | | | | | |
| B56:4T | BT56:1 | BT54:4 | BT89:4 | BT89:4 | BT72 | BT72 | BT72 |
| B57:4T | BT56A:1 | | | | | | |
| B58A:4T | BT57A:1 | BT54:A4 | BT89:A4 | BT89:A4 | BT72A | BT72A | BT72A |
| B58B:4T | BT57B:1 | | | | | | |
| B56:5T | BT56:2 | BT54:5 | BT89:5 | BT89:5 | | | |
| B57:5T | BT56A:2 | | | | | | |
| B58A:5T | BT57A:2 | BT54:A5 | BT89:A5 | BT89:A5 | | | |
| B58B:5T | BT57B:2 | | | | | | |
| B59T | BT58 | BT56 | | | | | |
| B60T | BT59 | BT55 | | | | | |
| B61T | BT60 | BT57 | BT90 | BT90 | BT73 | BT73 | BT73 |
| B64T | BT63 | | | | | | |
| B65T | BT64 | BT59 | | | | | |
| | | | | | BT74 | BT74 | BT74 |
| B66:BT | BT65Y:A | BT60:A | BT91:A | BT91:A | BT75:A | BT75:A | BT75:A |
| B66:CT | BT65Y:B | BT60:B | BT91:B | BT91:B | | | |
| B66:DT | BT65Y:C | BT60:C | BT91:C | BT91:C | | | |
| B66:ET | BT65Y:D | | BT91:D | BT91:D | | | |
| B66:FT | BT65Y:E } | BT60:D { | BT91:E | BT91:E | BT75:B | BT75:B | BT75:B |
| B66:GT | BT65Y:F } | { | BT91:F | BT91:F | BT75:C | BT75:C | BT75:C |
| B66:HT | BT65Y:G | BT60:E | BT91:G | BT91:G | BT75:D | BT75:D | BT75:D |
| B66:IT | BT65Y:H | BT60:F | BT91:H | BT91:H | BT75:E | BT75:E | BT75:E |
| B66:JT | BT65Y:I | | BT91:I | BT91:I | | | |
| B66:KT | BT65Y:J | | BT91:J | BT91:J | | | |
| B66:AT | BT65Y:K | | BT91:K | BT91:K | | | |
| B63:AT | BT62:A | | BT93:A | BT93:A | BT77:A | BT77:A | BT77:A |
| B63:BT | BT62:B | | BT93:B | BT93:B | BT77:B | BT77:B | BT77:B |
| B63:CT | BT62:C | | BT93:C | BT93:C | BT77:C | BT77:C | BT77:C |
| B63:DT | BT62:D | | | | BT77:F | BT77:F | BT77:F |
| | | | BT93:D | BT93:D | BT77:D | BT77:D | BT77:D |
| B63:ET | BT62:E | | | | | | |
| B63:GT | BT62:G | | BT93:E | BT93:E | BT77:E | BT77:E | BT77:E |
| B63:FT | BT62:F | | BT93:F | BT93:F | BT77:G | BT77:G | BT77:G |
| B63:HT | BT62:H | | BT93:G | BT93:G | BT77:H | BT77:H | BT77:H |
| | | BT62 | | | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | BT63 | | | | | |
| | | BT64 | BT94 | BT94 | BT67 | BT67 | BT67 |
| B67T | BT66 | BT65 | BT95 | BT95 | BT78 | BT78 | BT78 |
| B68T | BT67 | BT66 | BT96 | BT96 | BT79 | BT79 | BT79 |
| | | BT68:A-C | BT97:A-C | BT97:A-C | BT80:A-C | BT80:A-C | BT80:A-C |
| | | BT67:1-3 | BT98:1-3 | BT98:1-3 | | | |
| B69T | BT68 | BT69 | BT99 | BT99 | BT81 | BT81 | BT81 |
| | | BT70 | | | | | |
| B115T | BT115 | BT110 | | | | | |
| B116T | BT116 | BT108 | BT100 | BT100 | BT82 | BT82 | BT82 |
| B117:A-RT | BT117:A-U1 | BT109:A-D | BT101:A-D | BT101:A-D | BT83:1-5 | BT83:1-5 | BT83:1-5 |
| B136T | | BT111 | BT102 | BT102 | BT84 | BT84 | BT84 |
| | | | BT103 | BT103 | | | |
| B137T | | | BT104 | BT104 | BT89 | BT89 | BT89 |
| | | | BT105 | BT105 | BT90 | BT90 | BT90 |
| | | | BT105A | BT105A | BT90A | BT90A | BT90A |
| | | | BT106:HR | BT106:HR | BT91:HR | BT91:HR | BT91:HR |
| | | | BT106:MN | BT106:MN | BT91:MN | BT91:MN | BT91:MN |
| | | | BT106:AP | BT106:AP | BT91:AP | BT91:AP | BT91:AP |
| BHSTT | | BTSTAT | BTSTAT | BTSTAT | | | |
| | | | BH1:HR | BH1:HR | BH1:HR | BH1:HR | BH1:HR |
| | | | BH1:MN | BH1:MN | BH1:MN | BH1:MN | BH1:MN |
| | | | BH1:AP | BH1:AP | BH1:AP | BH1:AP | BH1:AP |
| | | | BH2 | BH2 | BH2 | BH2 | BH2 |
| B2T | BH1 | BH1 | BH3 | BH3 | BH3 | BH3 | BH3 |
| B3:AT | BH2:A | BH2:A | BH4:A | BH4:A | BH4:A | BH4:A | BH4:A |
| B3:BT | BH2:B | BH2:B | BH4:B | BH4:B | BH4:B | BH4:B | BH4:B |
| B3:CT | BH2:C | BH2:C | BH4:C | BH4:C | BH4:C | BH4:C | BH4:C |
| B3:DT | BH2:D | BH2:D | BH4:D | BH4:D | BH4:D | BH4:D | BH4:D |
| B3:ET | BH2:E | BH2:E | BH4:E | BH4:E | BH4:E | BH4:E | BH4:E |
| | BH2:F | BH2:F | BH4:F | BH4:F | BH4:F | BH4:F | BH4:F |
| B3:FT | BH2:G | BH2:G | BH4:G | BH4:G | BH4:G | BH4:G | BH4:G |
| B3:GT | BH2:H | BH2:H | BH4:H | BH4:H | BH4:H | BH4:H | BH4:H |
| B3:HT | BH2:J | BH2:I | BH4:I | BH4:I | BH4:I | BH4:I | BH4:I |
| B3:IT | BH2:K | | | | | | |
| | | BH2:J | BH4:J | BH4:J | BH4:J | BH4:J | BH4:J |
| B3:JT | BH2:L | BH2:K1-2 | BH4:K1-2 | BH4:K1-2 | BH4:K1-2 | BH4:K1-2 | BH4:K1-2 |
| B3:KT | BH2:M | | | | | | |
| | | BH3 | BH5 | BH5 | BH5 | BH5 | BH5 |
| | | BH4 | BH6 | BH6 | BH6 | BH6 | BH6 |
| | | BH4:A-E | BH6A-E | BH6A-E | BH6:A-E | BH6:A-E | BH6:A-E |
| | | BH5 | BH7 | BH7 | BH7 | BH7 | BH7 |
| | | BH5:A1-3 | BH7A:1-2 | BH7A:1-2 | BH7:A1-2 | BH7:A1-2 | BH7:A1-2 |
| | | BH6 | BH8 | BH8 | BH8 | BH8 | BH8 |
| | | BH6:A1-3 | BH8A:1-3 | BH8A:1-3 | BH8:A1-2 | BH8:A1-2 | BH8:A1-2 |
| B4T | BH3 | BH7 | BH9 | BH9 | BH9 | BH9 | BH9 |
| B4AT | BH4 | BH7A | BH10 | BH10 | | | |
| | BH5 | BH8 | BH11 | BH11 | BH10 | BH10 | BH10 |
| B5T | BH5A | BH9 | BH12 | BH12 | BH11:A | BH11:A | BH11:A |
| | | BH12 | BH12B | BH12B | BH11:B | BH11:B | BH11:B |
| B6T | BH6 | BH10 | BH13 | BH13 | BH12:A | BH12:A | BH12:A |
| | | | BH13B | BH13B | BH12:B | BH12:B | BH12:B |
| | | BH11 | | | | | |
| B7T | BH7 | BH13 | BH14 | BH14 | BH13 | BH13 | BH13 |
| B8:AT | BH8:A | BH14:A | BH15:A | BH15:A | | | |
| B8:BT | BH8:B | BH14:B | BH15:B | BH15:B | | | |
| B8:CT | BH8:C | BH14:C | BH15:C | BH15:C | | | |
| B8:DT | BH8:D | BH14:D | BH15:D | BH15:D | | | |
| B8:ET | BH8:E | BH14:E | BH15:E | BH15:E | | | |
| | BH8:F | BH14:F | BH15:F | BH15:F | | | |
| | BH8:G | BH14:G | BH15:G | BH15:G | | | |
| | BH8:H | BH14:H | BH15:H | BH15:H | | | |
| | BH8:I | BH14:I | BH15:I | BH15:I | | | |
| B8:FT | BH8:J | BH14:J | BH15:J | BH15:J | | | |
| | BH8:K | BH14:J1 | | | | | |
| | BH9 | BH15 | BH16 | BH16 | | | |
| B9:AT | BH9Y:A | BH17:A | BH17:A | BH17:A | | | |
| B9:BT | BH9Y:B | BH17:B | BH17:B | BH17:B | | | |
| B9:CT | BH9Y:C | BH17:C | BH17:C | BH17:C | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B9:DT | BH9Y:D | BH17:D | BH17:D | BH17:D | | | |
| B9:ET | BH9Y:E | BH17:E | BH17:E | BH17:E | | | |
| | BH9Y:F | BH17:F | BH17:F | BH17:F | | | |
| | BH9Y:G | BH17:G | BH17:G | BH17:G | | | |
| | BH9Y:H | BH17:H | BH17:H | BH17:H | | | |
| | BH9Y:I | BH17:I | BH17:I | BH17:I | | | |
| B9:FT | BH9Y:J | BH17:J | BH17:J | BH17:J | | | |
| B9:GT | | | | | | | |
| B10T | BH10 | BH18 | BH19 | BH19 | BH14 | BH14 | BH14 |
| B11T | BH11 | | | | | | |
| B12T | BH12 | | | | | | |
| B13T | BH13 | | | | | | |
| B14T | BH14 | BH19 | BH20 | BH20 | | | |
| B15T | BH15 } | BH20 | BH21 | BH21 | BH15 | BH15 | BH15 |
| B16T | BH16 } | | | | | | |
| B17:AT | BH17 | | | | | | |
| B17:BT | BH17:A | | | | | | |
| B17:CT | BH17:B | | | | | | |
| B17:DT | BH17:C | | | | | | |
| B17:ET | BH17:D | | | | | | |
| B17:FT | BH17:E | | | | | | |
| B17:GT | BH17:F | | | | | | |
| | BH17:G | | | | | | |
| | BH17:H | | | | | | |
| | BH17:I | | | | | | |
| | BH17:J | | | | | | |
| B17:HT | BH17:K | | | | | | |
| B18:1T | BH20B:1 | | | | | | |
| B18:2T | BH18:1 | BH21:A | BH22:A | BH22:A | BH16:A | BH16:A | BH16:A |
| B18:3T | BH18:3 | BH21:B | BH22:B | BH22:B | BH16:B | BH16:B | BH16:B |
| | | | | | | | BH16:C |
| B18:4T | BH18:4 | BH21:C | BH22:C | BH22:C | BH16:C | BH16:C | BH16:D |
| B18:5T | BH18:5 | BH21:D | BH22:D | BH22:D | BH16:D | BH16:D | BH16:E |
| B18:6T | BH18:6 | BH21:E | BH22:E | BH22:E | BH16:E | BH16:E | BH16:F |
| B18:7T | BH21:7 | BH21:F | BH22:F | BH22:F | BH16:F | BH16:F | BH16:G |
| B18:8T | BH21:8 | BH21:G | BH22:G | BH22:G | BH16:G | BH16:G | BH16:H |
| | | BH22 | BH24 | BH24 | BH18 | BH18 | BH18 |
| B20:1T | BH19:2 | | | | | | |
| B20A:1T | BH20A:1 | | | | | | |
| B20:2T | BH19:1 | BH23:A | BH25:A | BH25:A | BH19:A | BH19:A | BH19:A |
| B20:3T | BH19:3 | BH23:B | BH25:B | BH25:B | BH19:B | BH19:B | BH19:B |
| | | | | | | | BH19:C |
| B20:4T | BH19:4 | BH23:C | BH25:C | BH25:C | BH19:C | BH19:C | BH19:D |
| B20:5T | BH19:5 | BH23:D | BH25:D | BH25:D | BH19:D | BH19:D | BH19:E |
| B20:6T | BH19:6 | BH23:E | BH25:E | BH25:E | BH19:E | BH19:E | BH19:F |
| B20:7T | BH21A:7 | BH23:F | BH25:F | BH25:F | BH19:F | BH19:F | BH19:G |
| B20:8T | BH21A:8 | BH23:G | BH25:G | BH25:G | BH19:G | BH19:G | BH19:H |
| | | | | | BH20 | BH20 | BH20 |
| | | | | | BH21 | BH21 | BH21 |
| B21T | BH22 | BH24 | BH26 | BH26 | BH22 | BH22 | BH22 |
| B22T | BH23 | BH25 | BH27 | BH27 | BH23 | BH23 | BH23 |
| B23T | BH24 | | | | | | |
| B24T | BH25 | BH26 | BH28 | BH28 | BH24 | BH24 | BH24 |
| B25T | BH26 | BH27 | BH29 | BH29 | BH25 | BH25 | BH25 |
| B26T | BH27 | | | | | | |
| B31T | BH28 | BH28 | BH30 | BH30 | BH26 | BH26 | BH26 |
| B32T | BH29 | BH29 | BH31 | BH31 | BH27 | BH27 | BH27 |
| B34T | BH30 | BH30 | BH32 | BH32 | BH28 | BH28 | BH28 |
| B27T | BH31 | BH31 | | | | | |
| B28T | BH32 | | | | | | |
| B29T | BH33 | BH32 | BH33 | BH33 | BH29 | BH29 | BH29 |
| B30T | BH34 | BH32A | BH33A | BH33A | BH29:A | BH29:A | BH29:A |
| B33T | BH35 | BH33 | | | | | |
| B35T | BH36 | BH34 | BH34 | BH34 | | | |
| B36T | BH37 | BH35 | BH35 | BH35 | BH30 | BH30 | BH30 |
| B37T | BH38 | | | | | | |
| B38T | BH39 | BH36 | BH36 | BH36 | BH31 | BH31 | BH31 |
| B39T | BH40 | | | | | | |
| B40T | BH41 | | BH37 | BH37 | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B41T | BH42 | BH37 | BH38 | BH38 | BH32 | BH32 | BH32 |
| B42T | BH43 | BH38 | BH39 | BH39 | BH33 | BH33 | BH33 |
| B62T | | | BH40 | BH40 | BH34 | BH34 | BH34 |
| B43T | BH44 | BH39 | BH41 | BH41 | BH35 | BH35 | BH35 |
| B44T | BH45 | BH40 | BH42 | BH42 | BH36 | BH36 | BH36 |
| B45T | BH46 } | BH41 | BH43 | BH43 | BH37 | BH37 | BH37 |
| B46T | BH47 } | | | | | | |
| B47T | BH48 | BH42 | BH44 | BH44 | BH38 | BH38 | BH38 |
| | | BH43 | BH44A | BH44A | BH38:A | BH38:A | BH38:A |
| | | BH44 | | | | | |
| | | BH45 | | | | | |
| B48T | BH49 | BH46 | BH45 | BH45 | BH39 | BH39 | BH39 |
| | | BH47 | BH45A | BH45A | BH39:A | BH39:A | BH39:A |
| B50T | | | BH46 | BH46 | | | |
| B51T | | | BH47 | BH47 | | | |
| B52T | | | BH48 | BH48 | | | |
| B53T | | | | | | | |
| B70T | BH50 | BH51 | BH49 | BH49 | BH40 | BH40 | BH40 |
| B71:1-2T | BH51:1-2 | BH52:1-2 | BH50:1-2 | BH50:1-2 | BH41:1-2 | BH41:1-2 | BH41:1-2 |
| | BH54A | BH53 | BH51 | BH51 | BH41:A | BH41:A | BH41:A |
| B72T | BH52 | BH54 | BH52 | BH52 | | | |
| | | BH55 | BH52A | BH52A | | | |
| | | BH56 | | | | | |
| | | BH57 | | | | | |
| B73T | BH53 | BH58 | | | | | |
| | | BH59 | | | | | |
| B74T | BH54 | BH60 | | | | | |
| | | BH61 | | | | | |
| B77T | BH55 | BH62 | BH53 | BH53 | | | |
| | BH58 | | | | | | |
| B78:AT | BH58:A | | BH54 | BH54 | | | |
| B78:BT | BH58:B | | | | | | |
| B75:AT | BH56:A | BH63 | BH55 | BH55 | | | |
| B75:BT | BH56:B | | | | | | |
| B76:AT | BH57:A } | BH64 | BH56 | BH56 | | | |
| B79:AT | BH59:A } | | | | | | |
| B76:BT | BH57:B | | | | | | |
| B79:BT | BH59:B | | | | | | |
| B80T | BH60 | BH74 | | | | | |
| B81T | BH61 | BH65 | BH57 | BH57 | | | |
| | | | BH57A | BH57A | | | |
| B82T | BH62 | | | | | | |
| B83T | BH63 | | | | | | |
| B84T | BH64 | BH66 | BH58 | BH58 | BH42 | BH42 | BH42 |
| | | BH67 | BH58A | BH58A | BH42:A | BH42:A | BH42:A |
| | | BH68:1-3 | { BH59:A1-4 | BH59:A1-4 | BH43:A-D | BH43:A-D | BH43:A-D |
| | | | { BH59:B1-4 | BH59:B1-4 | BH44:A-D | BH44:A-D | BH44:A-D |
| | | | BH59:C1-4 | BH59:C1-4 | | | |
| | | | | | BH45 | BH45 | BH45 |
| | | | | | BH46:A-D | BH46:A-D | BH46:A-D |
| | | | | | BH47 | BH47 | BH47 |
| | | BH69 | BH59:D | BH59:D | BH48 | BH48 | BH48 |
| B85:A-BT | BH65:A-B | | | | | | |
| B86T | BH66 | | | | | | |
| B87T | BH67 | | | | | | |
| B88T | BH68 | | | | | | |
| B89T | BH69 | BH70 | BH60 | BH60 | BH49 | BH49 | BH49 |
| | | | BH60A | BH60A | | | |
| | | | | | BH50 | BH50 | BH50 |
| | | | | | BH50:A | BH50:A | BH50:A |
| B90T | BH70 | BH71 | | | | | |
| | BH70A | BH72 | BH61 | BH61 | BH51 | BH51 | BH51 |
| B91T | BH71 | | | | | | |
| B92T | BH72 | | | | | | |
| B93T | BH73 | BH73 | BH62 | BH62 | BH52 | BH52 | BH52 |
| | | | BH62A | BH62A | BH52:A | BH52:A | BH52:A |
| B94T | BH74 | BH75 | BH63 | BH63 | BH53 | BH53 | BH53 |
| | | | BH63A | BH63A | BH53:A | BH53:A | BH53:A |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B95T | BH75 | | | | | | |
| B96T | BH76 | BH76 | | | | | |
| B97T | BH77 | BH77 | BH64 | BH64 | BH54 | BH54 | BH54 |
| | | | BH64A | BH64A | BH54:A | BH54:A | BH54:A |
| B98T | BH78 | | | | | | |
| B99T | BH79 | BH78 | BH65 | BH65 | | | |
| B100T | BH80 | BH79 | | | | | |
| B101T | BH81 | BH80 | BH66 | BH66 | BH55 | BH55 | BH55 |
| B102T | BH82 | | BH66A | BH66A | BH55:A | BH55:A | BH55:A |
| | | | BH66B | BH66B | BH55:B | BH55:B | BH55:B |
| B103T | BH83 | BH81 | BH67 | BH67 | | | |
| B104T | BH84 | | BH67A | BH67A | | | |
| | | | BH67B | BH67B | | | |
| B105T | BH85 | | | | | | |
| B106T | BH86 | | BH68 | BH68 | | | |
| B107T | BH87 | | | | | | |
| B108T | BH88 | | | | | | |
| B109T | BH89 | BH82 | | | | | |
| B110T | BH90 | | | | | | |
| B111T | BH91 | BH83 | | | | | |
| B112T | BH92 | | | | | | |
| B113T | BH93 | BH84 | | | | | |
| B114:AT | BH94:A | BH85:A | BH69A | BH69A | | | |
| B114:BT | BH94:B | BH85:B | BH69B | BH69B | BH56 | BH56 | BH56 |
| | | | | | BH56:A | BH56:A | BH56:A |
| | | | | | BH56:B | BH56:B | BH56:B |
| B114:C1T | BH94:C1 | BH85:C | BH69C | BH69C | | | |
| B114:C2-3T | BH94:C2-3 | | | | | | |
| B114:D1T | BH94:D1 | BH85:D | BH69D | BH69D | | | |
| B114:D2-3T | BH94:D2-3 | | | | | | |
| B114:ET | BH94:E | BH85:E | BH69E | BH69E | | | |
| B114:FT | BH94:F | | BH69F | BH69F | BH57 | BH57 | BH57 |
| | | | | | BH57:A | BH57:A | BH57:A |
| | | | | | BH57:B | BH57:B | BH57:B |
| B114:GT | BH94:G | BH85:F | BH69G | BH69G | BH58 | BH58 | BH58 |
| | | | | | BH58:A | BH58:A | BH58:A |
| | | | | | BH58:B | BH58:B | BH58:B |
| B114:HT | BH94:H | BH85:G | BH69H | BH69H | BH59 | BH59 | BH59 |
| | | | | | BH59:A | BH59:A | BH59:A |
| | | | | | BH59:B | BH59:B | BH59:B |
| B114:IT | BH94:I | | BH69I | BH69I | BH60 | BH60 | BH60 |
| | | | | | BH60:A | BH60:A | BH60:A |
| | | | | | BH60:B | BH60:B | BH60:B |
| B114:JT | BH94:J | BH85:H | BH69J | BH69J | BH61 | BH61 | BH61 |
| | | | | | BH61:A | BH61:A | BH61:A |
| | | | | | BH61:B | BH61:B | BH61:B |
| B114:KT | BH94:K | BH85:I | | | | | |
| B114:LT | BH94:L | BH85:J | | | | | |
| B114:MT | BH94:M | BH85:K | BH69K | BH69K | BH62 | BH62 | BH62 |
| | | | | | BH62:A | BH62:A | BH62:A |
| | | | | | BH62:B | BH62:B | BH62:B |
| | | | BH70 | BH70 | BH63 | BH63 | BH63 |
| B115T | | BH90 | | | | | |
| B118T | BH97 | | | | | | |
| B119T | BH98 | | | | | | |
| B120T | BH99 | | | | | | |
| B121T | BH100 | | | | | | |
| B122T | BH101 | | | | | | |
| | | BH86 | | | | | |
| B123T | BH102 | BH87 | BH71 | BH71 | BH64 | BH64 | BH64 |
| B124T | BH103 | | | | | | |
| B125T | BH104 | | | | | | |
| B126T | BH105 | BH92 | BH72 | BH72 | | | |
| B127T | BH107 | | BH73 | BH73 | BH85* | BH85* | BH85* |
| | | BH93 | | | | | |
| | | | BH75 | BH75 | BH87* | BH87* | BH87* |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | BH75A | BH75A | BH87:A* | BH87:A* | BH87:A* |
| B128:A-ET | BH108:A-E1 | BH94:A-F | BH74:1-6 | BH74:1-6 | BH86:1-4* | BH86:1-4* | BH86:1-4* |
| | | | BH76:1-6 | BH76:1-6 | BH88:1-4* | BH88:1-4* | BH88:1-4* |
| | | | BH77:1-6 | BH77:1-6 | | | |
| | BH108A-E2 | | | | | | |
| B129:A-ET | BH109:A-E3 | | | | | | |
| B130:A-ET | BH110:A-E4 | | | | | | |
| B131T | BH111 | BH95 | BH78 | BH78 | | | |
| B132T | BH112 | | BH79 | BH79 | BH85* | BH85* | BH85* |
| | | BH96 | | | | | |
| | | | BH81 | BH81 | BH87* | BH87* | BH87* |
| | | | BH81A | BH81A | BH87A* | BH87A* | BH87A* |
| B133:A-ET | BH113:A-E1 | BH97:A-F | BH80:1-6 | BH80:1-6 | BH86:1-4* | BH86:1-4* | BH86:1-4* |
| | | | BH82:1-6 | BH82:1-6 | BH88:1-4* | BH88:1-4* | BH88:1-4* |
| | | | BH83:1-6 | BH83:1-6 | | | |
| | BH113A-E2 | | | | | | |
| B134:A-ET | BH114:A-E3 | | | | | | |
| B135:A-ET | BH115:A-E4 | | | | | | |
| B49T | | BH48 | BH84 | BH84 | BH65 | BH65 | BH65 |
| | | BH49 | BH85 | BH85 | BH66 | BH66 | BH66 |
| | | BH49:A1-3 | BH85:A1-3 | BH85:A1-3 | BH66:A1-4 | BH66:A1-4 | BH66:A1-4 |
| | | BH50 | BH86 | BH86 | | | |
| B116T | BH95 | BH88 | BH100 | BH100 | BH82 | BH82 | BH82 |
| B117:A-RT | BH96:A-U1 | BH89:1-4 | BH101:A-D | BH101:A-D | BH83:A-E | BH83:A-E | BH83:A-E |
| B136T | | BH91 | BH102 | BH102 | BH84 | BH84 | BH84 |
| | | | BH103 | BH103 | | | |
| B137T | | | BH104 | BH104 | BH89 | BH89 | BH89 |
| | | | BH105 | BH105 | BH90 | BH90 | BH90 |
| | | | BH105A | BH105A | BH90:A | BH90:A | BH90:A |
| | | | BH106:HR | BH106:HR | BH91:HR | BH91:HR | BH91:HR |
| | | | BH106:MN | BH106:MN | BH91:MN | BH91:MN | BH91:MN |
| | | | BH106:AP | BH106:AP | BH91:AP | BH91:AP | BH91:AP |
| BMSTT | | BHSTAT | BHSTAT | BHSTAT | | | |
| | | | BM1:HR | BM1:HR | BM1:HR | BM1:HR | BM1:HR |
| | | | BM1:MN | BM1:MN | BM1:MN | BM1:MN | BM1:MN |
| | | | BM1:AP | BM1:AP | BM1:AP | BM1:AP | BM1:AP |
| | | | BM2 | BM2 | BM2 | BM2 | BM2 |
| B3M | | | | | | | |
| B3AM | | | | | | | |
| B3BM | BM1 | BM1 | BM3 | BM3 | BM3 | BM3 | BM3 |
| B4:AM | BM2:A | BM2:A | BM4:A | BM4:A | BM4:A | BM4:A | BM4:A |
| B4:BM | BM2:B | BM2:B | BM4:B | BM4:B | BM4:B | BM4:B | BM4:B |
| B4:CM | BM2:C | BM2:C | BM4:C | BM4:C | BM4:C | BM4:C | BM4:C |
| B4:DM | BM2:D | BM2:D | BM4:D | BM4:D | BM4:D | BM4:D | BM4:D |
| B4:EM | BM2:E | BM2:E | BM4:E | BM4:E | BM4:E | BM4:E | BM4:E |
| | BM2:F | BM2:F | BM4:F | BM4:F | BM4:F | BM4:F | BM4:F |
| B4:FM | BM2:G | BM2:G | BM4:G | BM4:G | BM4:G | BM4:G | BM4:G |
| B4:GM | BM2:H | BM2:H | BM4:H | BM4:H | BM4:H | BM4:H | BM4:H |
| B4:HM | BM2:J | BM2:I | BM4:I | BM4:I | BM4:I | BM4:I | BM4:I |
| B4:IM | BM2:K | | | | | | |
| | | BM2:J | BM4:J | BM4:J | BM4:J | BM4:J | BM4:J |
| B4:JM | BM2:L | BM2:K1-2 | BM4:K1-2 | BM4:K1-2 | BM4:K1-2 | BM4:K1-2 | BM4:K1-2 |
| B4:KM | BM2:M | | | | | | |
| | | BM3 | BM5 | BM5 | BM5 | BM5 | BM5 |
| | | BM4 | BM6 | BM6 | BM6 | BM6 | BM6 |
| | | BM4:A-E | BM6A-E | BM6A-E | BM6A-E | BM6A-E | BM6A-E |
| | | BM5 | BM7 | BM7 | BM7 | BM7 | BM7 |
| | | BM5:A1-3 | BM7A:1-2 | BM7A:1-2 | BM7A:1-2 | BM7A:1-2 | BM7A:1-2 |
| | | BM6 | BM8 | BM8 | BM8 | BM8 | BM8 |
| | | BM6:A1-3 | BM8A:1-3 | BM8A:1-3 | BM8A:1-2 | BM8A:1-2 | BM8A:1-2 |
| B5M | BM3 | BM7 | BM9 | BM9 | BM9 | BM9 | BM9 |
| B6M | BM4 | BM8 | BM10 | BM10 | | | |
| | BM5 | BM9 | BM11 | BM11 | BM10 | BM10 | BM10 |
| B7M | BM5A | BM10 | BM12 | BM12 | BM11A | BM11A | BM11A |
| | | BM13* | BM12B | BM12B | BM11B | BM11B | BM11B |
| B8M | BM6 | BM11 | BM13 | BM13 | BM12A | BM12A | BM12A |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | BM13* | BM13B | BM13B | BM12B | BM12B | BM12B |
| | | BM12 | | | | | |
| B9M | BM7 | BM14 | BM14 | BM14 | BM13 | BM13 | BM13 |
| B10:AM | BM8:A | BM15:A | BM15:A | BM15:A | | | |
| B10:BM | BM8:B | BM15:B | BM15:B | BM15:B | | | |
| B10:CM | BM8:C | BM15:C | BM15:C | BM15:C | | | |
| B10:DM | BM8:D | BM15:D | BM15:D | BM15:D | | | |
| B10:EM | BM8:E | BM15:E | BM15:E | BM15:E | | | |
| | BM8:F | BM15:F | BM15:F | BM15:F | | | |
| | BM8:G | BM15:G | BM15:G | BM15:G | | | |
| | BM8:H | BM15:H | BM15:H | BM15:H | | | |
| | BM8:I | BM15:I | BM15:I | BM15:I | | | |
| B10:FM | BM8:J | BM15:J | BM15:J | BM15:J | | | |
| | BM8:K | | | | | | |
| | BM9 | BM16 | BM16 | BM16 | | | |
| B11:AM | BM9:A | BM17:A | BM17:A | BM17:A | | | |
| B11:BM | BM9:B | BM17:B | BM17:B | BM17:B | | | |
| B11:CM | BM9:C | BM17:C | BM17:C | BM17:C | | | |
| B11:DM | BM9:D | BM17:D | BM17:D | BM17:D | | | |
| B11:EM | BM9:E | BM17:E | BM17:E | BM17:E | | | |
| | BM9:F | BM17:F | BM17:F | BM17:F | | | |
| | BM9:G | BM17:G | BM17:G | BM17:G | | | |
| | BM9:H | BM17:H | BM17:H | BM17:H | | | |
| | BM9:I | BM17:I | BM17:I | BM17:I | | | |
| B11:FM | BM9:J | BM17:J | BM17:J | BM17:J | | | |
| B11:GM | | | | | | | |
| B12M | BM10 | BM19 | BM19 | BM19 | BM14 | BM14 | BM14 |
| B13M | BM11 | | | | | | |
| B14M | BM12 | | | | | | |
| B15M | BM13 | | | | | | |
| B16M | BM14 | BM20 | BM20 | BM20 | | | |
| B17M | BM15 } | BM21 | BM21 | BM21 | BM15 | BM15 | BM15 |
| B18M | BM16 } | | | | | | |
| B19:AM | BM17 | | | | | | |
| B19:BM | BM17:A | | | | | | |
| B19:CM | BM17:B | | | | | | |
| B19:DM | BM17:C | | | | | | |
| B19:EM | BM17:D | | | | | | |
| B19:FM | BM17:E | | | | | | |
| B19:GM | BM17:F | | | | | | |
| | BM17:G | | | | | | |
| | BM17:H | | | | | | |
| | BM17:I | | | | | | |
| | BM17:J | | | | | | |
| B19:HM | BM17:K | | | | | | |
| B20:1M | BM20B:1 | | | | | | |
| B20:2M | BM18:1 | BM22:A | BM22:A | BM22:A | BM16:A | BM16:A | BM16:A |
| B20:3M | BM18:3 | BM22:B | BM22:B | BM22:B | BM16:B | BM16:B | BM16:B |
| | | | | | | | BM16:C |
| B20:4M | BM18:4 | BM22:C | BM22:C | BM22:C | BM16:C | BM16:C | BM16:D |
| B20:5M | BM18:5 | BM22:D | BM22:D | BM22:D | BM16:D | BM16:D | BM16:E |
| B20:6M | BM18:6 | BM22:E | BM22:E | BM22:E | BM16:E | BM16:E | BM16:F |
| B20:7M | BM21:7 | BM22:F | BM22:F | BM22:F | BM16:F | BM16:F | BM16:G |
| B20A:7M | BM21A:7 | | | | | | |
| B20:8M | BM21:8 | BM22:G | BM22:G | BM22:G | BM16:G | BM16:G | BM16:H |
| B20A:8M | BM21A:8 | | | | | | |
| B21:2M | BM19:1 | BM23:A | BM23:A | BM23:A | BM17:A | BM17:A | BM17:A |
| | BM19:2 | | | | | | |
| B21:3M | BM19:3 | BM23:B | BM23:B | BM23:B | BM17:B | BM17:B | BM17:B |
| B21:4M | BM19:4 | BM23:C | BM23:C | BM23:C | BM17:C | BM17:C | BM17:D |
| B21:5M | BM19:5 | BM23:D | BM23:D | BM23:D | BM17:D | BM17:D | BM17:E |
| B21:6M | BM19:6 | BM23:E | BM23:E | BM23:E | BM17:E | BM17:E | BM17:F |
| B21:7M | BM21B:7 | BM23:F | BM23:F | BM23:F | BM17:F | BM17:F | BM17:G |
| B21:8M | BM21B:8 | BM23:G | BM23:G | BM23:G | BM17:G | BM17:G | BM17:H |
| | | BM24 | BM24 | BM24 | BM18 | BM18 | BM18 |
| B22:1M | BM20:2 | | | | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B22:2M | BM20:1 | BM25:A | BM25:A | BM25:A | BM19:A | BM19:A | BM19:A |
| B22:3M | BM20:3 | BM25:B | BM25:B | BM25:B | BM19:B | BM19:B | BM19:B |
| | | | | | | | BH19:C |
| B22:4M | BM20:4 | BM25:C | BM25:C | BM25:C | BM19:C | BM19:C | BM19:D |
| B22:5M | BM20:5 | BM25:D | BM25:D | BM25:D | BM19:D | BM19:D | BM19:E |
| B22:6M | BM20:6 | BM25:E | BM25:E | BM25:E | BM19:E | BM19:E | BM19:F |
| B22:7M | BM21C:7 | BM25:F | BM25:F | BM25:F | BM19:F | BM19:F | BM19:G |
| B22:8M | BM21C:8 | BM25:G | BM25:G | BM25:G | BM19:G | BM19:G | BM19:H |
| B23:1M | BM20A:1 | | | | | | |
| | | | | | BM20 | BM20 | BM20 |
| | | | | | BM21 | BM21 | BM21 |
| | | | | | BM22 | BM22 | BM22 |
| B24M | BM22 | BM26 | BM26 | BM26 | BM23 | BM23 | BM23 |
| B25M | BM22A | BM27 | BM27 | BM27 | | | |
| B26M | BM23 | | | | | | |
| B27M | BM24 | BM28 | BM28 | BM28 | BM24 | BM24 | BM24 |
| B28M | BM25 | BM29 | BM29 | BM29 | BM25 | BM25 | BM25 |
| B29M | BM26 | | | | | | |
| B34M | | | | | | | |
| B35M | BM27 | BM30 | BM30 | BM30 | BM26 | BM26 | BM26 |
| B36M | BM28 | BM31 | BM31 | BM31 | BM27 | BM27 | BM27 |
| B37M | BM34 | BM35 | | | | | |
| B38M | | | | | | | |
| | | BM32 | BM32 | BM32 | BM28 | BM28 | BM28 |
| B39M | BM29 | | | | | | |
| B30M | BM30 | BM33 | | | | | |
| B31M | BM31 | | | | | | |
| B32M | BM32 | BM34 | BM33 | BM33 | BM29 | BM29 | BM29 |
| B33M | BM33 | BM34:A | BM33A | BM33A | BM29A | BM29A | BM29A |
| B40M | BM35 | BM36 | BM34 | BM34 | | | |
| B41M | BM36 | BM37 | BM35 | BM35 | BM30 | BM30 | BM30 |
| B42M | BM37 | | | | | | |
| B43M | BM38 | BM38 | BM36 | BM36 | BM31 | BM31 | BM31 |
| B44M | | | | | | | |
| B45M | BM40 | | BM37 | BM37 | | | |
| B46M | BM41 | BM39 | BM38 | BM38 | BM32 | BM32 | BM32 |
| B64M | BM62 | BM59 | BM40 | BM40 | BM34 | BM34 | BM34 |
| B47M | BM42 | BM40 | BM41 | BM41 | BM35 | BM35 | BM35 |
| B48M | BM43 | BM41 | BM42 | BM42 | BM36 | BM36 | BM36 |
| B49M | BM44 } | BM42 | BM43 | BM43 | BM37 | BM37 | BM37 |
| B50M | BM45 } | | | | | | |
| B51M | BM46 | BM43 | BM44 | BM44 | BM38 | BM38 | BM38 |
| | | BM44 | BM44A | BM44A | BM38A | BM38A | BM38A |
| | | BM45 | | | | | |
| | | BM46 | | | | | |
| B52M | BM47 | BM47 | BM45 | BM45 | BM39 | BM39 | BM39 |
| | | BM48 | BM45A | BM45A | BM39A | BM39A | BM39A |
| B73M | BM70 | BM74 | BM49 | BM49 | BM40 | BM40 | BM40 |
| B74:1-2M | BM71:1-2 | BM75:1-2 | BM50:1-2 | BM50:1-2 | BM41:1-2 | BM41:1-2 | BM41:1-2 |
| | BM74A | BM76 | BM51 | BM51 | BM41A | BM41A | BM41A |
| B75M | BM71A | BM77 | BM51A | BM51A | | | |
| B76M | BM72 | BM78 | BM52 | BM52 | | | |
| | | BM79 | BM52A | BM52A | | | |
| | | BM80 | | | | | |
| | | BM81 | | | | | |
| B77M | BM73 | BM82 | | | | | |
| | | BM83 | | | | | |
| B78M | BM74 | BM84 | | | | | |
| | | BM85 | | | | | |
| B81M | BM75 | BM86 | BM53 | BM53 | | | |
| | BM78 | | | | | | |
| B82:AM | BM78A | | BM54 | BM54 | | | |
| B82:BM | BM78B | | | | | | |
| B79:AM | BM76A | BM87 | BM55 | BM55 | | | |
| B79:BM | BM76B | | | | | | |
| B80:AM | BM77A } | BM88 | BM56 | BM56 | | | |
| B83:AM | BM79A } | | | | | | |
| B80:BM | BM77B | | | | | | |
| B83:BM | BM79B | | | | | | |
| B84M | BM80 | BM98 | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B85M | BM81 | BM89 | BM57 | BM57 | | | |
| | | | BM57A | BM57A | | | |
| B86M | BM82 | | | | | | |
| B87M | BM83 | | | | | | |
| B88M | BM84 | BM90 | BM58 | BM58 | BM42 | BM42 | BM42 |
| | | BM91 | BM58A | BM58A | BM42A | BM42A | BM42A |
| | | BM92:A-C | { BM59:A1-4 | BM59:A1-4 | BM43:1-4 | BM43:1-4 | BM43:1-4 |
| | | | { BM59:B1-4 | BM59:B1-4 | BM44:1-4 | BM44:1-4 | BM44:1-4 |
| | | | BM59:C1-4 | BM59:C1-4 | | | |
| | | | | | BM45 | BM45 | BM45 |
| | | | | | BM46:1-4 | BM46:1-4 | BM46:1-6 |
| | | | | | BM47 | BM47 | BM47 |
| | | BM93 | BM59:D | BM59:D | BM48 | BM48 | BM48 |
| B89:A-BM | BM85A-B | | | | | | |
| B90M | BM86 | | | | | | |
| B91M | BM87 | | | | | | |
| B92M | BM88 | | | | | | |
| B93M | BM89 | BM94 | BM60 | BM60 | BM49 | BM49 | BM49 |
| | | | BM60A | BM60A | | | |
| | | | | | BM50 | BM50 | BM50 |
| | | | | | BM50A | BM50A | BM50A |
| B94M | BM90 | BM95 | | | | | |
| | BM90A | BM96 | BM61 | BM61 | BM51 | BM51 | BM51 |
| B95M | BM91 | | | | | | |
| B96M | BM92 | | | | | | |
| B97M | BM93 | BM97 | BM62 | BM62 | BM52 | BM52 | BM52 |
| | | | BM62A | BM62A | BM52A | BM52A | BM52A |
| B98M | BM94 | BM99 | BM63 | BM63 | BM53 | BM53 | BM53 |
| | | | BM63A | BM63A | BM53A | BM53A | BM53A |
| B99M | BM95 | | | | | | |
| B100M | BM96 | BM100 | | | | | |
| B101M | BM97 | BM100A | BM64 | BM64 | BM54 | BM54 | BM54 |
| | | | BM64A | BM64A | BM54A | BM54A | BM54A |
| B102M | BM98 | | | | | | |
| B103M | BM99 | BM101 | BM65 | BM65 | | | |
| B104M | BM100 | BM102 | | | | | |
| B105M | BM101 | BM103 | BM66 | BM66 | BM55 | BM55 | BM55 |
| B106M | BM102 | | BM66A | BM66A | BM55A | BM55A | BM55A |
| | | | BM66B | BM66B | BM55B | BM55B | BM55B |
| B107M | BM103 | BM104 | BM67 | BM67 | | | |
| B108M | BM104 | | BM67A | BM67A | | | |
| | | | BM67B | BM67B | | | |
| B109M | BM105 | | | | | | |
| B110M | BM106 | | BM68 | BM68 | | | |
| B111M | BM107 | | | | | | |
| B112M | BM108 | | | | | | |
| B113M | BM109 | BM105 | | | | | |
| B114M | BM110 | | | | | | |
| B115M | BM111 | BM106 | | | | | |
| B116M | BM112 | | | | | | |
| B117M | BM113 | BM107 | | | | | |
| B118:AM | BM114:A | BM108:A | BM69A | BM69A | | | |
| B118:BM | BM114:B | BM108:B | BM69B | BM69B | BM56 | BM56 | BM56 |
| | | | | | BM56A | BM56A | BM56A |
| | | | | | BM56B | BM56B | BM56B |
| B118:C1M | BM114:C1 | BM108:C | BM69C | BM69C | | | |
| B118:C2-3M | BM114:C2-3 | | | | | | |
| B118:D1M | BM114:D1 | BM108:D | BM69D | BM69D | | | |
| B118:D2-3M | BM114:D2-3 | | | | | | |
| B118:EM | BM114:E | BM108:G | BM69E | BM69E | | | |
| B118:FM | BM114:F | | BM69F | BM69F | BM57 | BM57 | BM57 |
| | | | | | BM57A | BM57A | BM57A |
| | | | | | BM57B | BM57B | BM57B |
| B118:GM | BM114:G | BM108:E | BM69G | BM69G | BM58 | BM58 | BM58 |
| | | | | | BM58A | BM58A | BM58A |
| | | | | | BM58B | BM58B | BM58B |
| B118:HM | BM114:H | BM108:F | BM69H | BM69H | BM59 | BM59 | BM59 |
| | | | | | BM59A | BM59A | BM59A |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | | | BM59B | BM59B | BM59B |
| B118:IM | BM114:I | | BM69I | BM69I | BM60 | BM60 | BM60 |
| | | | | | BM60A | BM60A | BM60A |
| | | | | | BM60B | BM60B | BM60B |
| B118:JM | BM114:J | BM108:H | BM69J | BM69J | BM61 | BM61 | BM61 |
| | | | | | BM61A | BM61A | BM61A |
| | | | | | BM61B | BM61B | BM61B |
| B118:KM | BM114:K | BM108:I | | | | | |
| B118:LM | BM114:L | BM108:J | | | | | |
| B118:MM | BM114:M | BM108:K | BM69K | BM69K | BM62 | BM62 | BM62 |
| | | | | | BM62A | BM62A | BM62A |
| | | | | | BM62B | BM62B | BM62B |
| | | | BM70 | BM70 | BM63 | BM63 | BM63 |
| B122M | BM117 | | | | | | |
| B123M | BM118 | | | | | | |
| B124M | BM119 | | | | | | |
| B125M | BM120 | | | | | | |
| B126M | BM121 | | | | | | |
| | | BM109 | | | | | |
| B127M | BM122 | BM110 | BM71 | BM71 | BM64 | BM64 | BM64 |
| B128M | BM123 | | | | | | |
| B129M | BM124 | | | | | | |
| B130M | BM125 | BM115 | BM72 | BM72 | | | |
| B131M | BM127 | | BM73 | BM73 | BM85* | BM85* | BM85* |
| | | BM116 | | | | | |
| | | | BM75 | BM75 | BM87* | BM87* | BM87* |
| | | | BM75A | BM75A | BM87A* | BM87A* | BM87A* |
| B132:A-EM | BM128AA-E1 | BM117:A-F | BM74:1-6 | BM74:1-6 | BM86:1-4* | BM86:1-4* | BM86:1-4* |
| | | | BM76:1-6 | BM76:1-6 | BM88:1-4* | BM88:1-4* | BM88:1-4* |
| | | | BM77:1-6 | BM77:1-6 | | | |
| | BM129:A-E2 | | | | | | |
| B133:A-EM | BM129AA-E3 | | | | | | |
| B134:A-EM | BM130:A-E4 | | | | | | |
| B135M | BM131 | BM118 | BM78 | BM78 | | | |
| B136M | BM132 | | BM79 | BM79 | BM85* | BM85* | BM85* |
| | | BM119 | | | | | |
| | | | BM81 | BM81 | BM87* | BM87* B | M87* |
| | | | BM81A | BM81A | BM87A* | BM87A* B | M87A* |
| B137:A-EM | BM133AA-E1 | BM120:A-F | BM80:1-6 | BM80:1-6 | BM86:1-4* | BM86:1-4* | BM86:1-4* |
| | | | BM82:1-6 | BM82:1:6 | BM88:1-4* | BM88:1-4* | BM88:1-4* |
| | | | BM83:1-6 | BM83:1-6 | | | |
| | BM134:A-E2 | | | | | | |
| B138:A-EM | BM135:A-E3 | | | | | | |
| B139:A-EM | BM136:A-E4 | | | | | | |
| B53M | | BM49 | BM84 | BM84 | BM65 | BM65 | BM65 |
| | | BM50 | BM85 | BM85 | BM66 | BM66 | BM66 |
| | | BM50:A1-3 | BM85:A1-3 | BM85:A1-3 | BM66:A1-4 | BM66:A1-4 | BM66:A1-4 |
| | | BM51 | BM86 | BM86 | | | |
| B54M | BM48 | BM52 | BM87 | BM87 | BM68 | BM68 | BM68 |
| B55M | BM49 } | BM53 | BM88 | BM88 | BM69 | BM69 | BM69 |
| B56M | BM50 } | | | | | | |
| B57:1M | BM51:1 | BM54:1 | BM89:2 | BM89:2 | BM70 | BM70 | BM70 |
| B58:1M | BM52:1 | | | | | | |
| B59:1M | BM53:1 | BM54:A1 | BM89:A2 | BM89:A2 | BM70A | BM70A | BM70A |
| B60:1M | BM54:1 | | | | | | |
| B57:2M | BM51:2 | BM54:2 | BM89:3 | BM89:3 | BM71 | BM71 | BM71 |
| B58:2M | BM52:2 | | | | | | |
| B59:2M | BM53:2 | BM54:A2 | BM89:A3 | BM89:A3 | BM71A | BM71A | BM71A |
| B60:2M | BM54:2 | | | | | | |
| B61M | BM55 | BM55 | BM89:B3 | BM89:B3 | BM71B | BM71B | BM71B |
| B61AM | BM56 | BM56 | BM89:4 | BM89:4 | BM72 | BM72 | BM72 |
| B61BM | BM57 | | | | | | |
| B61CM | BM58 | BM56:A | BM89:A4 | BM89:A4 | BM72A | BM72A | BM72A |
| B61DM | BM59 | | | | | | |
| | | | BM89:B4 | BM89:B4 | | | |
| B57:3M | BM51:3 | BM54:3 | BM89:5 | BM89:5 | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B58:3M | BM52:3 | | | | | | |
| B59:3M | BM53:3 | BM54:A3 | BM89:A5 | BM89:A5 | | | |
| B60:3M | BM54:3 | | | | | | |
| | | | BM89:B5 | BM89:B5 | | | |
| B62M | BM60 | BM57 | | | | | |
| B63M | BM61 | BM58 | BM90 | BM90 | BM73 | BM73 | BM73 |
| B64AM | BM62A | BM60 | BM90A | BM90A | BM73A | BM73A | BM73A |
| B65M | BM62B | BM61 | | | | | |
| B67M | BM64 | | | | | | |
| B68M | BM65 | BM62 | | | | | |
| | | | | | BM74 | BM74 | BM74 |
| B69:BM | BM66:A | BM63:A | BM91:A | BM91:A | | | |
| | | | | | BM75:A | BM75:A | BM75:A |
| B69:CM | BM66:B | BM63:B | BM91:B | BM91:B | | | |
| B69:DM | BM66:C | BM63:C | BM91:C | BM91:C | | | |
| B69:EM | BM66:D | | BM91:D | BM91:D | | | |
| B69:FM | BM66:E } | BM63:D | { BM91:E | BM91:E | BM75:B | BM75:B | BM75:B |
| B69:GM | BM66:F } | | { BM91:F | BM91:F | BM75:C | BM75:C | BM75:C |
| B69:HM | BM66:G | BM63:E | BM91:G | BM91:G | BM75:D | BM75:D | BM75:D |
| B69:IM | BM66:H | BM63:F | BM91:H | BM91:H | BM75:E | BM75:E | BM75:E |
| B69:JM | BM66:I | | BM91:I | BM91:I | | | |
| B69:KM | BM66:J | | BM91:J | BM91:J | | | |
| B69:AM | BM66:K | | BM91:K | BM91:K | | | |
| B66:AM | BM63:A | | BM93:A | BM93:A | BM77:A | BM77:A | BM77:A |
| B66:BM | BM63:B | | BM93:B | BM93:B | BM77:B | BM77:B | BM77:B |
| B66:CM | BM63:C | | BM93:C | BM93:C | BM77:C | BM77:C | BM77:C |
| B66:DM | BM63:D | | | | BM77:F | BM77:F | BM77:F |
| B66:EM | BM63:E | | | | | | |
| | | | BM93:D | BM93:D | BM77:D | BM77:D | BM77:D |
| B66:GM | BM63:G | | BM93:E | BM93:E | BM77:E | BM77:E | BM77:E |
| B66:FM | BM63:F | | BM93:F | BM93:F | BM77:G | BM77:G | BM77:G |
| B66:HM | BM63:H | | BM93:G | BM93:G | BM77:H | BM77:H | BM77:H |
| | | BM65 | | | | | |
| | | BM66 | | | | | |
| | | | | | BM67 | BM67 | BM67 |
| | | BM67 | BM94 | BM94 | BM67A | BM67A | BM67A |
| B70M | BM67 | BM68 | BM95 | BM95 | BM78 | BM78 | BM78 |
| B71M | BM68 | BM69 | BM96 | BM96 | BM79 | BM79 | BM79 |
| | | BM71:A-C | BM97:A-C | BM97:A-C | BM80:A-C | BM80:A-C | BM80:A-C |
| | | BM70:A-C | BM98:1-3 | BM98:1-3 | | | |
| B72M | BM69 | BM72 | BM99 | BM99 | BM81 | BM81 | BM81 |
| | | BM73 | | | | | |
| B119M | | BM113 | | | | | |
| B120M | BM115 | BM111 | BM100 | BM100 | BM82 | BM82 | BM82 |
| B121:A-RM | BM116:A-U2 | BM112:A-D | BM101:A-D | BM101:A-D | BM83:1-5 | BM83:1-5 | BM83:1-5 |
| B140M | | BM114 | BM102 | BM102 | BM84 | BM84 | BM84 |
| | | | BM103 | BM103 | | | |
| B141M | | | BM104 | BM104 | BM89 | BM89 | BM89 |
| | | | BM105 | BM105 | BM90 | BM90 | BM90 |
| | | | BM105A | BM105A | BM90A | BM90A | BM90A |
| | | | BM106:HR | BM106:HR | BM91:HR | BM91:HR | BM91:HR |
| | | | BM106:MN | BM106:MN | BM91:MN | BM91:MN | BM91:MN |
| | | | BM106:AP | BM106:AP | BM91:AP | BM91:AP | BM91:AP |
| BMSTM | | BMSTAT | BMSTAT | BMSTAT | | | |
| | | | BLHRBG | BLHRBG | BL1:HR | BL1:HR | BL1:HR |
| | | | BLMNBG | BLMNBG | BL1:MN | BL1:MN | BL1:MN |
| | | | BLAMPM | BLAMPM | BL1:AP | BL1:AP | BL1:AP |
| | | BL1 | | | | | |
| | | | BL2 | BL2 | BL2 | BL2 | BL2 |
| B1L | | BL2 | | | | | |
| B1AL | | BL3 | BL3 | BL3 | BL3 | BL3 | BL3 |
| B2:AL | | BL4:A | BL4:A | BL4:A | BL4:A | BL4:A | BL4:A |
| B2:BL | | BL4:B | BL4:B | BL4:B | BL4:B | BL4:B | BL4:B |
| B2:CL | | BL4:C | BL4:C | BL4:C | BL4:C | BL4:C | BL4:C |
| | | BL4:D | BL4:D | BL4:D | BL4:D | BL4:D | BL4:D |
| B2:DL | | BL4:E | BL4:E | BL4:E | BL4:E | BL4:E | BL4:E |
| | | BL4:F | BL4:F | BL4:F | BL4:F | BL4:F | BL4:F |
| B2:EL | | BL4:G | BL4:G | BL4:G | BL4:G | BL4:G | BL4:G |
| B2:FL | | BL4:H | BL4:H | BL4:H | BL4:H | BL4:H | BL4:H |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B2:GL | | BL4:I | BL4:I | BL4:I | BL4:I | BL4:I | BL4:I |
| B2:HL | | BL4:J | BL4:J | BL4:J | BL4:J | BL4:J | BL4:J |
| B2:IL | | BL4:K1-2 | BL4:K1-2 | BL4:K1-2 | BL4:K1-2 | BL4:K1-2 | BL4:K1-2 |
| B2:JL | | | | | | | |
| B3L | | BL5 | BL9 | BL9 | BL9 | BL9 | BL9 |
| | | BL6 | BL10 | BL10 | | | |
| B4L | | BL7 | BL11 | BL11 | BL10 | BL10 | BL10 |
| B4AL | | BL8 | BL12:A | BL12:A | BL11 | BL11 | BL11 |
| B4BL | | BL9 | BL12:C | BL12:C | BL11C | BL11C | BL11C |
| B4CL | | BL10 | BL12:D | BL12:D | BL11D | BL11D | BL11D |
| B5L | | | | | | | |
| B6L | | BL11 | BL13 | BL13 | BL12 | BL12 | BL12 |
| B7L | | BL12 | BL13:C | BL13:C | BL12C | BL12C | BL12C |
| B8L | | BL13 | BL13:D | BL13:D | BL12D | BL12D | BL12D |
| B9L | | BL14 | BL14 | BL14 | BL13 | BL13 | BL13 |
| B10:AL | | BL15:A | BL15:A | BL15:A | | | |
| B10:BL | | BL15:B | BL15:B | BL15:B | | | |
| B10:CL | | BL15:C | BL15:C | BL15:C | | | |
| B10:DL | | BL15:D | BL15:D | BL15:D | | | |
| B10:EL | | BL15:E | BL15:E | BL15:E | | | |
| | | BL15:F | BL15:F | BL15:F | | | |
| | | BL15:G | BL15:G | BL15:G | | | |
| | | BL15:H | BL15:H | BL15:H | | | |
| | | BL15:I | BL15:I | BL15:I | | | |
| B10:FL | | BL15:J | BL15:J | BL15:J | | | |
| | | BL16 | BL16 | BL16 | | | |
| B11:AL | | BL17:A | BL17:A | BL17:A | | | |
| B11:BL | | BL17:B | BL17:B | BL17:B | | | |
| B11:CL | | BL17:C | BL17:C | BL17:C | | | |
| B11:DL | | BL17:D | BL17:D | BL17:D | | | |
| B11:EL | | BL17:E | BL17:E | BL17:E | | | |
| | | BL17:F | BL17:F | BL17:F | | | |
| | | BL17:G | BL17:G | BL17:G | | | |
| | | BL17:H | BL17:H | BL17:H | | | |
| | | BL17:I | BL17:I | BL17:I | | | |
| B11:FL | | BL17:J | BL17:J | BL17:J | | | |
| B11:GL | | | | | | | |
| B12L | | | | | | | |
| B13L | | | | | | | |
| B14L | | BL19 | BL20 | BL20 | | | |
| B15L } | | BL20 | BL21 | BL21 | BL15 | BL15 | BL15 |
| B16L } | | | | | | | |
| B17:A-HL | | | | | | | |
| B18:1L | | | | | | | |
| B19:1L | | | | | | | |
| B18:2L | | BL21:1 } | BL22:A | BL22:A | BL16:A | BL16:A | BL16:A |
| B19:2L | | BL22:1 } | | | | | |
| B18:3L | | BL21:2 } | BL22:A1 | BL22:A1 | BL16:A1 | BL16:A1 | BL16:A1 |
| B19:3L | | BL22:2 } | | | | | |
| B18:4L | | BL21:3 } | BL22:B | BL22:B | BL16:B | BL16:B | BL16:B |
| B19:4L | | BL22:3 } | | | | | |
| B18:5L | | BL21:4 } | BL22:B1 | BL22:B1 | BL16:B1 | BL16:B1 | BL16:C |
| B19:5L | | BL22:4 } | | | | | |
| B18:6L | | BL24:5 } | BL22:C | BL22:C | BL16:C | BL16:C | BL16:D |
| B19:6L | | BL24A:5 } | | | | | |
| B18:7L | | BL24:6 } | BL22:D | BL22:D | BL16:D | BL16:D | BL16:E |
| B19:7L | | BL24A:6 } | | | | | |
| B18:8L | | BL24:7 } | BL22:E | BL22:E | BL16:E | BL16:E | BL16:F |
| B19:8L | | BL24A:7 } | | | | | |
| B18:9L | | BL24:8 } | BL22:F | BL22:F | BL16:F | BL16:F | BL16:G |
| B19:9L | | BL24A:8 } | | | | | |
| B18:10L | | BL24:9 } | BL22:G | BL22:G | BL16:G | BL16:G | BL16:H |
| B19:10L | | BL24A:9 } | | | | | |
| B20:1L | | | | | | | |
| B20:2L | | BL23:1 | BL23:A | BL23:A | BL17:A | BL17:A | BL17:A |
| B20:3L | | BL23:2 | BL23:A1 | BL23:A1 | BL17:A1 | BL17:A1 | BL17:A1 |
| B20:4L | | BL23:3 | BL23:B | BL23:B | BL17:B | BL17:B | BL17:B |
| B20:6L | | BL25:5 | BL23:C | BL23:C | BL17:C | BL17:C | BL17:D |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B20:7L | | BL25:6 | BL23:D | BL23:D | BL17:D | BL17:D | BL17:E |
| B20:8L | | BL25:7 | BL23:E | BL23:E | BL17:E | BL17:E | BL17:F |
| B20:9L | | BL25:8 | BL23:F | BL23:F | BL17:F | BL17:F | BL17:G |
| B20:10L | | BL25:9 | BL23:G | BL23:G | BL17:G | BL17:G | BL17:H |
| | | BL26 | BL24 | BL24 | BL18 | BL18 | BL18 |
| B21:1L | | | | | | | |
| B21A:1L | | | | | | | |
| B21:2L | | BL26A:1 | BL25:1 | BL25:1 | BL19:A | BL19:A | BL19:A |
| B21:3L | | BL26A:2 | BL25:2 | BL25:2 | BL19:B | BL19:B | BL19:B |
| B21:4L | | BL26A:3 | BL25:3 | BL25:3 | BL19:C | BL19:C | BL19:C |
| | | BL26A:4 | BL25:4 | BL25:4 | BL19:D | BL19:D | BL19:D |
| B21:6L | | BL26A:5 | BL25:5 | BL25:5 | BL19:E | BL19:E | BL19:E |
| B21:7L | | BL26A:6 | BL25:6 | BL25:6 | BL19:F | BL19:F | BL19:F |
| B21:8L | | BL26A:7 | BL25:7 | BL25:7 | BL19:G | BL19:G | BL19:G |
| B21:9L | | BL26A:8 | BL25:8 | BL25:8 | BL19:H | BL19:H | BL19:H |
| B21:10L | | BL26A:9 | BL25:9 | BL25:9 | BL19:I | BL19:I | BL19:I |
| | | | | | BL20 | BL20 | BL20 |
| | | | | | BL21 | BL21 | BL21 |
| B27L | | | BL26 | BL26 | BL22 | BL22 | BL22 |
| B28L | | BL32 | BL27 | BL27 | BL23 | BL23 | BL23 |
| B29L | | | | | | | |
| B30L | | BL33 | BL28 | BL28 | BL24 | BL24 | BL24 |
| B31L | | BL34 | BL29 | BL29 | BL25 | BL25 | BL25 |
| B32L | | | | | | | |
| B37L | | BL35 | BL30 | BL30 | BL26 | BL26 | BL26 |
| B38L | | BL36 | BL31 | BL31 | BL27 | BL27 | BL27 |
| B39L | | BL40 | | | | | |
| | | BL37 | BL32 | BL32 | BL28 | BL28 | BL28 |
| B40L | | | | | | | |
| B33L | | BL38 | | | | | |
| B34L | | | | | | | |
| B35L | | BL39 | BL33 | BL33 | BL29 | BL29 | BL29 |
| B36L | | BL39A | BL33:A | BL33:A | BL29A | BL29A | BL29A |
| B41L | | BL41 | BL34 | BL34 | | | |
| B42L | | BL42 | BL35 | BL35 | BL30 | BL30 | BL30 |
| B43L | | | | | | | |
| B44L | | BL43 | BL36 | BL36 | BL31 | BL31 | BL31 |
| B45L | | | | | | | |
| B46L | | | BL37 | BL37 | | | |
| B47L | | BL44 | BL38 | BL38 | BL32 | BL32 | BL32 |
| B48L | | BL45 | BL39 | BL39 | BL33 | BL33 | BL33 |
| B66L | | BL65 | BL40 | BL40 | BL34 | BL34 | BL34 |
| B49L | | BL46 | BL41 | BL41 | BL35 | BL35 | BL35 |
| B50L | | BL47 | BL42 | BL42 | BL36 | BL36 | BL36 |
| B51L } | | BL48 | BL43 | BL43 | BL37 | BL37 | BL37 |
| B52L } | | | | | | | |
| B53L | | BL49 | BL44 | BL44 | BL38 | BL38 | BL38 |
| | | BL50 | BL44:A | BL44:A | BL38A | BL38A | BL38A |
| | | BL51 | | | | | |
| | | BL52 | | | | | |
| B54L | | BL53 | BL45 | BL45 | BL39 | BL39 | BL39 |
| | | BL54 | BL45:A | BL45:A | BL39A | BL39A | BL39A |
| | | | BL46 | BL46 | | | |
| B56L | | | BL47 | BL47 | | | |
| B57L | | | BL48 | BL48 | | | |
| B74L | | BL77 | BL49 | BL49 | BL40 | BL40 | BL40 |
| B75:1-2L | | BL78:1-2 | BL50:1-2 | BL50:1-2 | BL41:1-2 | BL41:1-2 | BL41:1-2 |
| | | BL79 | BL51 | BL51 | BL41A | BL41A | BL41A |
| B76L | | BL80 | BL52 | BL52 | | | |
| | | BL81 | BL52:A | BL52:A | | | |
| | | BL82 | | | | | |
| | | BL83 | | | | | |
| B77L | | BL84 | | | | | |
| | | BL85 | | | | | |
| B78L | | BL86 | | | | | |
| | | BL87 | | | | | |
| B81L | | BL88 | BL53 | BL53 | | | |
| B82:AL | | | BL54 | BL54 | | | |
| B82:BL | | | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B79:AL | | BL89 | BL55 | BL55 | | | |
| B79:BL | | | | | | | |
| B80:AL } | | BL90 | BL56 | BL56 | | | |
| B83:AL } | | | | | | | |
| B80:BL | | | | | | | |
| B83:BL | | | | | | | |
| B84L | | BL100 | | | | | |
| B85L | | BL91 | BL57 | BL57 | | | |
| | | | BL57:A | BL57:A | | | |
| B86L | | | | | | | |
| B87L | | | | | | | |
| B88L | | BL92 | BL58 | BL58 | BL42 | BL42 | BL42 |
| | | BL93 | BL58:A | BL58:A | BL42A | BL42A | BL42A |
| | | BL94:A-C | { BL59:A1-4 | BL59:A1-4 | BL43:1-4 | BL43:1-4 | BL43:1-4 |
| | | | { BL59:B1-4 | BL59:B1-4 | BL44:1-4 | BL44:1-4 | BL44:1-4 |
| | | | BL59:C1-4 | BL59:C1-4 | | | |
| | | | | | BL45 | BL45 | BL45 |
| | | | | | BL46:1-4 | BL46:1-4 | BL46:1-4 |
| | | | | | BL47 | BL47 | BL47 |
| | | BL95 | BL59:D | BL59:D | BL48 | BL48 | BL48 |
| B89:A-BL | | | | | | | |
| B90L | | | | | | | |
| B91L | | | | | | | |
| B92L | | | | | | | |
| B93L | | BL96 | BL60 | BL60 | BL49 | BL49 | BL49 |
| | | | BL60:A | BL60:A | | | |
| B94L | | BL97 | | | | | |
| B95L | | | | | | | |
| B96L | | | | | | | |
| | | | | | BL50 | BL50 | BL50 |
| | | | | | BL50A | BL50A | BL50A |
| | | BL98 | BL61 | BL61 | BL51 | BL51 | BL51 |
| B97L | | BL99 | BL62 | BL62 | BL52 | BL52 | BL52 |
| | | | BL62:A | BL62:A | BL52A | BL52A | BL52A |
| B98L | | BL101 | BL63 | BL63 | BL53 | BL53 | BL53 |
| | | | BL63:A | BL63:A | BL53A | BL53A | BL53A |
| B99L | | | | | | | |
| B100L | | BL102 | | | | | |
| B101L | | BL103 | BL64 | BL64 | BL54 | BL54 | BL54 |
| | | | BL64:A | BL64:A | BL54A | BL54A | BL54A |
| B102L | | | | | | | |
| B103L | | BL104 | BL65 | BL65 | | | |
| B104L | | BL105 | | | | | |
| B105L | | BL106 | BL66 | BL66 | BL55 | BL55 | BL55 |
| B106L | | | BL66:A | BL66:A | BL55A | BL55A | BL55A |
| | | | BL66:B | BL66:B | BL55B | BL55B | BL55B |
| B107L | | BL107 | BL67 | BL67 | | | |
| B108L | | | BL67:A | BL67:A | | | |
| | | | BL67:B | BL67:B | | | |
| B109L | | | | | | | |
| B110L | | | BL68 | BL68 | | | |
| B111L | | | | | | | |
| B112L | | | | | | | |
| B113L | | BL108 | | | | | |
| B114L | | | | | | | |
| B115L | | BL109 | | | | | |
| B116L | | | | | | | |
| B116A:AL | | BL110:A | BL69:A | BL69:A | | | |
| B116A:BL | | BL110:B | BL69:B | BL69:B | BL56 | BL56 | BL56 |
| | | | | | BL56A | BL56A | BL56A |
| | | | | | BL56B | BL56B | BL56B |
| B116AC1L | | BL110:C | BL69:C | BL69:C | | | |
| B116AC2-3L | | | | | | | |
| B116AD1L | | BL110:D | BL69:D | BL69:D | | | |
| B116AD2-3L | | | | | | | |
| B116A:EL | | BL110:G | BL69:E | BL69:E | | | |
| B116A:FL | | | BL69:F | BL69:F | BL57 | BL57 | BL57 |
| | | | | | BL57A | BL57A | BL57A |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | | | BL57B | BL57B | BL57B |
| B116A:GL | | BL110:E | BL69:G | BL69:G | BL58 | BL58 | BL58 |
| | | | | | BL58A | BL58A | BL58A |
| | | | | | BL58B | BL58B | BL58B |
| B116A:HL | | BL110:F | BL69:H | BL69:H | BL59 | BL59 | BL59 |
| | | | | | BL59A | BL59A | BL59A |
| | | | | | BL59B | BL59B | BL59B |
| B116A:IL | | | BL69:I | BL69:I | BL60 | BL60 | BL60 |
| | | | | | BL60A | BL60A | BL60A |
| | | | | | BL60B | BL60B | BL60B |
| B116A:JL | | BL110:H | BL69:J | BL69:J | BL61 | BL61 | BL61 |
| | | | | | BL61A | BL61A | BL61A |
| | | | | | BL61B | BL61B | BL61B |
| B116A:KL | | BL110:I | | | | | |
| B116A:LL | | BL110:J | | | | | |
| B116A:ML | | BL110:K | BL69:K | BL69:K | BL62 | BL62 | BL62 |
| | | | | | BL62A | BL62A | BL62A |
| | | | | | BL62B | BL62B | BL62B |
| | | | BL70 | BL70 | BL63 | BL63 | BL63 |
| B120L | | | | | | | |
| B121L | | | | | | | |
| B122L | | | | | | | |
| B123L | | | | | | | |
| B124L | | | | | | | |
| | | BL111 | | | | | |
| B125L | | BL112 | BL71 | BL71 | BL64 | BL64 | BL64 |
| B126L | | | | | | | |
| B127L | | | | | | | |
| B128L | | BL116 | BL72 | BL72 | | | |
| B129L | | | BL73 | BL73 | BL85* | BL85* | BL85* |
| | | BL117 | | | | | |
| | | | BL75 | BL75 | BL87* | BL87* | BL87* |
| | | | BL75:A | BL75:A | BL87A* | BL87A* | BL87A* |
| B130:A-EL | | BL118:A-F | BL74:1-6 | BL74:1-6 | BL86:1-4* | BL86:1-4* | BL86:1-4* |
| | | | BL76:1-6 | BL76:1-6 | BL88:1-4* | BL88:1-4* | BL88:1-4* |
| | | | BL77:1-6 | BL77:1-6 | | | |
| B131:A-EL | | | | | | | |
| B132:A-EL | | | | | | | |
| B133L | | BL119 | BL78 | BL78 | | | |
| B134L | | | BL79 | BL79 | BL85* | BL85* | BL85* |
| | | BL120 | | | | | |
| | | | BL81 | BL81 | BL87* | BL87* | BL87* |
| | | | BL81:A | BL81:A | BL87A* | BL87A* | BL87A* |
| B135:A-EL | | BL121:A-F | BL80:1-6 | BL80:1-6 | BL86:1-4* | BL86:1-4* | BL86:1-4* |
| | | | BL82:1-6 | BL82:1-6 | BL88:1-4* | BL88:1-4* | BL88:1-4* |
| | | | BL83:1-6 | BL83:1-6 | | | |
| B136:A-EL | | | | | | | |
| B137:A-EL | | | | | | | |
| B55L | | BL55 | BL84 | BL84 | BL65 | BL65 | BL65 |
| | | BL56 | BL85 | BL85 | BL66 | BL66 | BL66 |
| | | BL56:A1-3 | BL85:A1-3 | BL85:A1-3 | BL66:A1-4 | BL66:A1-4 | BL66:A1-4 |
| | | BL57 | BL86 | BL86 | | | |
| B58L | | BL58 | BL87 | BL87 | BL68 | BL68 | BL68 |
| B59L } | | BL59 | BL88 | BL88 | BL69 | BL69 | BL69 |
| B60L } | | | | | | | |
| B61:1L | | BL60:1 | BL89:1 | BL89:1 | | | |
| B62:1L | | | | | | | |
| B62A:1L | | BL60:A1 | BL89:A1 | BL89:A1 | | | |
| B62B:1L | | | | | | | |
| B61:2L | | BL60:2 | BL89:2 | BL89:2 | BL70 | BL70 | BL70 |
| B62:2L | | | | | | | |
| B62A:2L | | BL60:A2 | BL89:A2 | BL89:A2 | BL70A | BL70A | BL70A |
| B62B:2L | | | | | | | |
| B61:3L | | BL60:3 | BL89:3 | BL89:3 | BL71 | BL71 | BL71 |
| B62:3L | | | | | | | |
| B62A:3L | | BL60:A3 | BL89:A3 | BL89:A3 | BL71A | BL71A | BL71A |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B62B:3L | | | | | | | |
| B61:4L | | BL61:1 | BL89:4 | BL89:4 | BL72 | BL72 | BL72 |
| B62:4L | | | | | | | |
| B62A:4L | | BL61:A1 | BL89:A4 | BL89:A4 | BL72A | BL72A | BL72A |
| B62B:4L | | | | | | | |
| B61:5L | | BL61:2 | BL89:5 | BL89:5 | | | |
| B62:5L | | | | | | | |
| B62A:5L | | BL61:A2 | BL89:A5 | BL89:A5 | | | |
| B62B:5L | | | | | | | |
| B63L | | BL63 | | | | | |
| B64L | | BL62 | | | | | |
| B65L | | BL64 | BL90 | BL90 | BL73 | BL73 | BL73 |
| B68L | | | | | | | |
| B69L | | BL66 | | | | | |
| | | | | | BL74 | BL74 | BL74 |
| B70:BL | | BL67:A | BL92:A | BL92:A | | | |
| B70:CL | | BL67:B | BL92:B | BL92:B | | | |
| B70:DL | | BL67:C | BL92:C | BL92:C | | | |
| B70:EL | | | BL92:D | BL92:D | | | |
| | | | | | BL75:A | BL75:A | BL75:A |
| B70:FL } | | BL67:D | { BL92:E | BL92:E | BL75:B | BL75:B | BL75:B |
| B70:GL } | | | { BL92:F | BL92:F | BL75:C | BL75:C | BL75:C |
| B70:HL | | BL67:E | BL92:G | BL92:G | BL75:D | BL75:D | BL75:D |
| B70:IL | | BL67:F | BL92:H | BL92:H | BL75:E | BL75:E | BL75:E |
| B70:JL | | | BL92:I | BL92:I | | | |
| B70:KL | | | BL92:J | BL92:J | | | |
| B70:AL | | | BL92:K | BL92:K | | | |
| B67:AL | | | BL93:A | BL93:A | BL77:A | BL77:A | BL77:A |
| B67:BL | | | BL93:B | BL93:B | BL77:B | BL77:B | BL77:B |
| B67:CL | | | BL93:C | BL93:C | BL77:C | BL77:C | BL77:C |
| B67:DL | | | | | BL77:F | BL77:F | BL77:F |
| B67:EL } | | | BL93:D | BL93:D | BL77:D | BL77:D | BL77:D |
| B67:FL } | | | | | | | |
| D67:GL | | | | | | | |
| B67:IL | | | BL93:E | BL93:E | BL77:E | BL77:E | BL77:E |
| B67:HL | | | BL93:F | BL93:F | BL77:G | BL77:G | BL77:G |
| B67:JL | | | BL93:G | BL93:G | BL77:H | BL77:H | BL77:H |
| | | BL69 | | | | | |
| | | BL70 | | | | | |
| | | BL71 | BL94 | BL94 | BL67 | BL67 | BL67 |
| B71L | | BL72 | BL95 | BL95 | BL78 | BL78 | BL78 |
| B72L | | BL73 | BL96 | BL96 | BL79 | BL79 | BL79 |
| | | BL74A:1-3 | BL97:A-C | BL97:A-C | BL80:A-C | BL80:A-C | BL80:A-C |
| | | BL74:A-C | BL98:1-3 | BL98:1-3 | | | |
| B73L | | BL75 | BL99 | BL99 | BL81 | BL81 | BL81 |
| | | BL76 | | | | | |
| B117L | | BL114 | | | | | |
| B118L | | BL113 | BL100 | BL100 | BL82 | BL82 | BL82 |
| B119:A-RL | | BL113A:1-4 | BL101:1-4 | BL101:1-4 | BL83:1-5 | BL83:1-5 | BL83:1-5 |
| B138L | | BL115 | BL102 | BL102 | BL84 | BL84 | BL84 |
| | | | BL103 | BL103 | | | |
| B139L | | | BL104 | BL104 | BL89 | BL89 | BL89 |
| | | | BL105 | BL105 | BL90 | BL90 | BL90 |
| | | | BL105:A | BL105:A | BL90A | BL90A | BL90A |
| | | | BLHREN | BLHREN | BL91:HR | BL91:HR | BL91:HR |
| | | | BLMNEN | BLMNEN | BL91:MN | BL91:MN | BL91:MN |
| | | | BLAPEN | BLAPEN | BL91:AP | BL91:AP | BL91:AP |
| BMSTL | | BLSTAT | BLSTAT | BLSTAT | | | |
| | | | CT1:HR | CT1:HR | CT1:HR | CT1:HR | CT1:HR |
| | | | CT1:MN | CT1:MN | CT1:MN | CT1:MN | CT1:MN |
| | | | CT1:AP | CT1:AP | CT1:AP | CT1:AP | CT1:AP |
| C1T | CT1 | CT1 | CT2 | CT2 | CT2 | CT2 | CT2 |
| C2T | CT1A | CT2 | CT3 | CT3 | CT3 | CT3 | CT3 |
| | CT1B | CT3 | CT4 | CT4 | CT4 | CT4 | CT4 |
| | CT2:A | | CT5A | CT5A } | | | |
| | CT2:B1-88 | | CT5B:02-14 | CT5B:02-14 } | CT5 | CT5 | CT5 |
| | | | CT5C | CT5C } | | | |
| C3T | CT3 | CT4 | CT6 | CT6 | CT6 | CT6 | CT6 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C4T | CT4 | | | | | | |
| C5T | CT5 | CT5 | CT7 | CT7 | CT7 | CT7 | CT7 |
| C6T | CT6 | CT6 | CT8 | CT8 | CT8 | CT8 | CT8 |
| C7MT | CT7:M | CT7:M | | | | | |
| C7DT | CT7:D | CT7:D | | | | | |
| C7YT | CT7:Y | CT7:Y | | | | | |
| C8T | CT8 | CT8 | CT9 | CT9 | CT9 | CT9 | CT9 |
| C9T | CT9 | CT9 | CT10 | CT10 | CT10 | CT10 | CT10 |
| C9AT | CT10 | CT10 | CT11 | CT11 | CT11 | CT11 | CT11 |
| C10T | CT11 | CT11 | CT12 | CT12 | | | |
| | | | | | CT12 | CT12 | CT12 |
| C11T | CT11A | CT12 | CT13 | CT13 | | | |
| C12:AT | CT12:A | | | | | | |
| C12:BT | CT12:B | | | | | | |
| C12:CT | CT12:C | | | | | | |
| C12:DT | CT12:D | | | | | | |
| C12:ET | CT12:E | | | | | | |
| C12:FT | CT12:F | | | | | | |
| C12:GT | CT12:G | | | | | | |
| C12:HT | CT12:H | | | | | | |
| | CT12:I | | | | | | |
| | CT12:J | | | | | | |
| C12:IT | CT12:K | | | | | | |
| C13T | CT13 | | | | | | |
| C14T | CT14 | | | | | | |
| C15T | CT11B | CT13 | CT14 | CT14 | CT13:A | CT13:A | CT13:A |
| C16T | CT15 | | | | | | |
| C17T | CT16 | | | | | | |
| C18T | CT17 | CT14:A | CT15:A | CT15:A | | | |
| | | CT14:B | CT15:B | CT15:B | CT13:B | CT13:B | CT13:B |
| | | | | | CT13:C | CT13:C | CT13:C |
| | | | | | CT13:D | CT13:D | CT13:D |
| | | CT14:C | CT15:C | CT15:C | CT13:E | CT13:E | CT13:E |
| C19:AT | CT18A:A | CT15 | CT16 | CT16 | CT14 | CT14 | CT14 |
| C19:BT | CT18A:B | CT15A | CT16A | CT16A | CT14A | CT14A | CT14A |
| C19:CT | CT18A:C | CT15B | CT16B | CT16B | CT15 | CT15 | CT15 |
| C19AT | CT19 | CT16 | CT17 | CT17 | CT16 | CT16 | CT16 |
| C21T | CT21 | CT17 | CT18 | CT18 | CT17 | CT17 | CT17 |
| C20MT | CT20A:M | CT18 | CT19 | CT19 | CT18 | CT18 | CT18 |
| C20YT | CT20A:Y | | | | | | |
| C22T | CT22 | CT19 | CT20 | CT20 | CT19 | CT19 | CT19 |
| C23T | CT23 | CT20 | CT21 | CT21 | CT20 | CT20 | CT20 |
| | | CT21 | CT22 | CT22 | CT21 | CT21 | CT21 |
| | | CT22 | CT23 | CT23 | CT22 | CT22 | CT22 |
| | | CT23 | CT24 | CT24 | CT23 | CT23 | CT23 |
| | | CT24 | CT25 | CT25 | CT24 | CT24 | CT24 |
| C24T | CT24 | CT25 | CT26 | CT26 | CT25 | CT25 | CT25 |
| C25T | | | | | | | |
| C26:AT | CT25:A | CT26:A | CT27:A | CT27:A | CT26:A | CT26:A | CT26:A |
| C26:BT | CT25:B | CT26:B | CT27:B | CT27:B | CT26:B | CT26:B | CT26:B |
| C26:CT | CT25:C | CT26:C | CT27:C | CT27:C | | | |
| C26:DT | CT25:D | CT26:D | CT27:D | CT27:D | CT26:C | CT26:C | CT26:C |
| C27T | CT26 | CT27 | CT28 | CT28 | CT27 | CT27 | CT27 |
| C28T | CT27 | CT28 | CT29 | CT29 | CT28 | CT28 | CT28 |
| C29T | CT28 | CT29 | CT30 | CT30 | | | |
| C94:1T | CT40:1 | CT30:1 | CT31:1 | CT31:1 | CT29:1 | CT29:1 | CT29:1 |
| C97A:A1T | CT44:A1 | CT33:A1 | CT32:A1 | CT32:A1 | CT30:A1 | CT30:A1 | CT30:A1 |
| C97A:B1T | CT44:B1 | CT33:B1 | CT32:B1 | CT32:B1 | CT30:B1 | CT30:B1 | CT30:B1 |
| C97A:C1T | CT44:C1 | CT33:C1 | CT32:C1 | CT32:C1 | CT30:C1 | CT30:C1 | CT30:C1 |
| C97A:D1T | CT44:D1 | CT33:D1 | CT32:D1 | CT32:D1 | CT30:D1 | CT30:D1 | CT30:D1 |
| C96AB:1T | CT41:1 | CT31:1 | CT33:1 | CT33:1 | CT31:1 | CT31:1 | CT31:1 |
| C97:A1T | CT43:A1 | CT32:A1 | CT34:A1 | CT34:A1 | CT32:A1 | CT32:A1 | CT32:A1 |
| C97:B1T | CT43:B1 | CT32:B1 | CT34:B1 | CT34:B1 | CT32:B1 | CT32:B1 | CT32:B1 |
| C97:C1T | CT43:C1 | CT32:C1 | CT34:C1 | CT34:C1 | CT32:C1 | CT32:C1 | CT32:C1 |
| | CT43:D1 | CT32:D1 | CT34:D1 | CT34:D1 | CT32:D1 | CT32:D1 | CT32:D1 |
| | CT43:E1 | CT32:E1 | CT34:E1 | CT34:E1 | CT32:E1 | CT32:E1 | CT32:E1 |
| C94:2T | CT40:2 | CT30:2 | CT31:2 | CT31:2 | CT29:2 | CT29:2 | CT29:2 |
| C97A:A2T | CT44:A2 | CT33:A2 | CT32:A2 | CT32:A2 | CT30:A2 | CT30:A2 | CT30:A2 |
| C97A:B2T | CT44:B2 | CT33:B2 | CT32:B2 | CT32:B2 | CT30:B2 | CT30:B2 | CT30:B2 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C97A:C2T | CT44:C2 | CT33:C2 | CT32:C2 | CT32:C2 | CT30:C2 | CT30:C2 | CT30:C2 |
| C97A:D2T | CT44:D2 | CT33:D2 | CT32:D2 | CT32:D2 | CT30:D2 | CT30:D2 | CT30:D2 |
| C96AB:2T | CT41:2 | CT31:2 | CT33:2 | CT33:2 | CT31:2 | CT31:2 | CT31:2 |
| C97:A2T | CT43:A2 | CT32:A2 | CT34:A2 | CT34:A2 | CT32:A2 | CT32:A2 | CT32:A2 |
| C97:B2T | CT43:B2 | CT32:B2 | CT34:B2 | CT34:B2 | CT32:B2 | CT32:B2 | CT32:B2 |
| C97:C2T | CT43:C2 | CT32:C2 | CT34:C2 | CT34:C2 | CT32:C2 | CT32:C2 | CT32:C2 |
| | CT43:D2 | CT32:D2 | CT34:D2 | CT34:D2 | CT32:D2 | CT32:D2 | CT32:D2 |
| | CT43:E2 | CT32:E2 | CT34:E2 | CT34:E2 | CT32:E2 | CT32:E2 | CT32:E2 |
| C97:A3T | | | | | | | |
| C97:B3T | | | | | | | |
| C97:C3T | | | | | | | |
| C94:4T | CT40:3 | CT30:3 | CT31:3 | CT31:3 | CT29:3 | CT29:3 | CT29:3 |
| C96AB:4T | CT41:3 | CT31:3 | CT33:3 | CT33:3 | CT31:3 | CT31:3 | CT31:3 |
| C97:A4T | CT43:A3 | CT32:A3 | CT34:A3 | CT34:A3 | CT32:A3 | CT32:A3 | CT32:A3 |
| C97:B4T | CT43:B3 | CT32:B3 | CT34:B3 | CT34:B3 | CT32:B3 | CT32:B3 | CT32:B3 |
| C97:C4T | CT43:C3 | CT32:C3 | CT34:C3 | CT34:C3 | CT32:C3 | CT32:C3 | CT32:C3 |
| | CT43:D3 | CT32:D3 | CT34:D3 | CT34:D3 | CT32:D3 | CT32:D3 | CT32:D3 |
| | CT43:E3 | CT32:E3 | CT34:E3 | CT34:E3 | CT32:E3 | CT32:E3 | CT32:E3 |
| | CT40:4A | CT30:4A | CT31:OF | CT31:OF | | | |
| C94:5T | CT40:4B | CT30:4B | CT31:4 | CT31:4 | CT29:4 | CT29:4 | CT29:4 |
| C97A:A5T | CT44:A4 | CT33:A4 | CT32:A4 | CT32:A4 | CT30:A4 | CT30:A4 | CT30:A4 |
| C97A:B5T | CT44:B4 | CT33:B4 | CT32:B4 | CT32:B4 | CT30:B4 | CT30:B4 | CT30:B4 |
| C97A:C5T | CT44:C4 | CT33:C4 | CT32:C4 | CT32:C4 | CT30:C4 | CT30:C4 | CT30:C4 |
| C97A:D5T | CT44:D4 | CT33:D4 | CT32:D4 | CT32:D4 | CT30:D4 | CT30:D4 | CT30:D4 |
| C96AB:5T | CT41:4 | CT31:4 | CT33:4 | CT33:4 | CT31:4 | CT31:4 | CT31:4 |
| C97:A5T | CT43:A4 | CT32:A4 | CT34:A4 | CT34:A4 | CT32:A4 | CT32:A4 | CT32:A4 |
| C97:B5T | CT43:B4 | CT32:B4 | CT34:B4 | CT34:B4 | CT32:B4 | CT32:B4 | CT32:B4 |
| C97:C5T | CT43:C4 | CT32:C4 | CT34:C4 | CT34:C4 | CT32:C4 | CT32:C4 | CT32:C4 |
| | CT43:D4 | CT32:D4 | CT34:D4 | CT34:D4 | CT32:D4 | CT32:D4 | CT32:D4 |
| | CT43:E4 | CT32:E4 | CT34:E4 | CT34:E4 | CT32:E4 | CT32:E4 | CT32:E4 |
| C94:6T | CT40:5 | CT30:5 | CT31:5 | CT31:5 | CT29:6 | CT29:6 | CT29:6 |
| C96AB:6T | CT41:5 | CT31:5 | CT33:5 | CT33:5 | CT31:6 | CT31:6 | CT31:6 |
| C97:A6T | CT43:A5 | CT32:A5 | CT34:A5 | CT34:A5 | CT32:A6 | CT32:A6 | CT32:A6 |
| C97:B6T | CT43:B5 | CT32:B5 | CT34:B5 | CT34:B5 | CT32:B6 | CT32:B6 | CT32:B6 |
| C97:C6T | CT43:C5 | CT32:C5 | CT34:C5 | CT34:C5 | CT32:C6 | CT32:C6 | CT32:C6 |
| | CT43:D5 | CT32:D5 | CT34:D5 | CT34:D5 | CT32:D6 | CT32:D6 | CT32:D6 |
| | CT43:E5 | CT32:E5 | CT34:E5 | CT34:E5 | CT32:E6 | CT32:E6 | CT32:E6 |
| C94:7T | CT40:6 | CT30:6 | CT31:6 | CT31:6 | CT29:5 | CT29:5 | CT29:5 |
| C96AB:7T | CT41:6 | CT31:6 | CT33:6 | CT33:6 | CT31:5 | CT31:5 | CT31:5 |
| C97:A7T | CT43:A6 | CT32:A6 | CT34:A6 | CT34:A6 | CT32:A5 | CT32:A5 | CT32:A5 |
| | CT43:D6 | CT32:D6 | CT34:D6 | CT34:D6 | CT32:D5 | CT32:D5 | CT32:D5 |
| | CT43:E6 | CT32:E6 | CT34:E6 | CT34:E6 | CT32:E5 | CT32:E5 | CT32:E5 |
| C97:A8T | | | | | | | |
| C97:B8T | | | | | | | |
| C97:C8T | | | | | | | |
| C94:9T | CT40:7 | CT30:7 | CT31:7 | CT31:7 | CT29:7 | CT29:7 | CT29:7 |
| C96AB:9T | CT41:7 | CT31:7 | CT33:7 | CT33:7 | CT31:7 | CT31:7 | CT31:7 |
| C97:A9T | CT43:A7 | CT32:A7 | CT34:A7 | CT34:A7 | CT32:A7 | CT32:A7 | CT32:A7 |
| | CT43:D7 | CT32:D7 | CT34:D7 | CT34:D7 | CT32:D7 | CT32:D7 | CT32:D7 |
| | CT43:E7 | CT32:E7 | CT34:E7 | CT34:E7 | CT32:E7 | CT32:E7 | CT32:E7 |
| | CT44A:A1-5 | CT34:A1-5 | CT35:A1-5 | CT35:A1-5 | CT33:A1-2 | CT33:A1-2 | CT33:A1-2 |
| | CT44A:B1-5 | CT34:B1-5 | CT35:B1-5 | CT35:B1-5 | CT33:B1-2 | CT33:B1-2 | CT33:B1-2 |
| | CT44A:C1-5 | CT34:C1-5 | CT35:C1-5 | CT35:C1-5 | CT33:C1-2 | CT33:C1-2 | CT33:C1-2 |
| | CT44A:D1-5 | CT34:D1-5 | CT35:D1-5 | CT35:D1-5 | CT33:D1-2 | CT33:D1-2 | CT33:D1-2 |
| | CT44A:E1-5 | CT34:E1-5 | CT35:E1-5 | CT35:E1-5 | CT33:E1-2 | CT33:E1-2 | CT33:F1-2 |
| | CT44A:F1-5 | CT34:F1-5 | CT35:F1-5 | CT35:F1-5 | CT33:F1-2 | CT33:F1-2 | CT33:E1-2 |
| | CT44A:G1-5 | CT34:G1-5 | CT35:G1-5 | CT35:G1-5 | CT33:G1-2 | CT33:G1-2 | CT33:G1-2 |
| | CT44B:A1-5 | CT35:A1-5 | CT36:A1-5 | CT36:A1-5 | CT34:A1-2 | CT34:A1-2 | CT34:A1-2 |
| | CT44B:B1-5 | CT35:B1-5 | CT36:B1-5 | CT36:B1-5 | CT34:B1-2 | CT34:B1-2 | CT34:B1-2 |
| | CT44B:C1-5 | CT35:C1-5 | CT36:C1-5 | CT36:C1-5 | CT34:C1-2 | CT34:C1-2 | CT34:C1-2 |
| | CT44B:D1-5 | CT35:D1-5 | CT36:D1-5 | CT36:D1-5 | CT34:D1-2 | CT34:D1-2 | CT34:D1-2 |
| | | | | | | | CT34:E |
| C98:AT | CT45:A | CT36:A | | | | | |
| C98:BT | CT45:B | CT36:B | | | | | |
| C98:CT | CT45:C | CT36:C | | | | | |
| C98:DT | CT45:D | CT36:D | | | | | |
| | CT45:E | CT36:E | | | | | |
| C98:ET | CT45:F | CT36:F | | | | | |
| C98:FT | CT45:G | CT36:G | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C98:GT | CT45:H | CT36:H | | | | | |
| C98:HT | CT45:I | CT36:I | | | | | |
| C98:IT | CT45:J | CT36:J | | | | | |
| | | CT36:K | | | | | |
| C98:JT | CT45:K | CT36:L | | | | | |
| C99:AT | CT46:A | | | | | | |
| C99:BT | CT46:B | CT37:A | | | | | |
| C99:CT | CT46:C | CT37:B | | | | | |
| C99:DT | CT46:D | CT37:C | | | | | |
| C99:ET | CT46:E | CT37:D | | | | | |
| C99:FT | CT46:F | CT37:E | | | | | |
| C99:GT | CT46:G | CT37:F | | | | | |
| C100T | CT47 | CT38 | CT39 | CT39 | CT37 | CT37 | CT37 |
| C101:A-IT | CT48:A-I | CT39:A-I | | | | | |
| C101AT | CT48A | CT40 | CT41 | CT41 | CT39 | CT39 | CT39 |
| C102:1-14T | CT49:1-12 | CT41:1-12 | CT42:1-12 | CT42:1-12 | CT40:1-12 | CT40:1-12 | CT40:1-12 |
| | CT50:1-12 | CT42:1-12 | CT43:1-12 | CT43:1-12 | CT41:1-12 | CT41:1-12 | CT41:1-12 |
| | CT51A:2-12 | CT43:2-12 | CT43A:2-12 | CT43A:2-12 | | | |
| | CT51B:2-12 | CT44:2-12 | CT43B:2-12 | CT43B:2-12 | | | |
| | CT51C:1-12 | | | | | | |
| | CT51D:1-12 | | | | | | |
| C103:1-14T | CT51E:1-12 | CT45:1-12 | CT44:1-12 | CT44:1-12 | CT42:1-12 | CT42:1-12 | CT42:1-12 |
| C104:1-14T | CT52:1-12 | CT46:1-12 | CT45:1-12 | CT45:1-12 | CT43:1-12 | CT43:1-12 | CT43:1-12 |
| | | | CT46:1-12 | CT46:1-12 | CT44:1-12 | CT44:1-12 | CT44:1-12 |
| | | | CT47:1-12 | CT47:1-12 | CT45:1-12 | CT45:1-12 | CT45:1-12 |
| | | | CT48:1-12 | CT48:1-12 | CT46:1-12 | CT46:1-12 | CT46:1-12 |
| | | | CT49:1-12 | CT49:1-12 | | | |
| | | | CT50:A1-12 | CT50:A1-12 | CT47:A1-12 | CT47:A1-12 | CT47:A1-12 |
| | | | CT50:B1-12 | CT50:B1-12 | CT47:B1-12 | CT47:B1-12 | CT47:B1-12 |
| | | | CT50:C1-12 | CT50:C1-12 | CT47:C1-12 | CT47:C1-12 | CT47:C1-12 |
| | | | CT50:D1-12 | CT50:D1-12 | CT47:D1-12 | CT47:D1-12 | CT47:D1-12 |
| | | | CT50:E1-12 | CT50:E1-12 | CT47:E1-12 | CT47:E1-12 | CT47:E1-12 |
| | | | CT50:F1-12 | CT50:F1-12 | CT47:F1-12 | CT47:F1-12 | CT47:F1-12 |
| | | | CT50:G1-12 | CT50:G1-12 | CT47:G1-12 | CT47:G1-12 | CT47:G1-12 |
| | | | CT50:H1-12 | CT50:H1-12 | CT47:H1-12 | CT47:H1-12 | CT47:H1-12 |
| | | | CT50:I1-12 | CT50:I1-12 | CT47:I1-12 | CT47:I1-12 | CT47:I1-12 |
| C105:1-14T | | | | | | | |
| C105A1-14T | CT53:1-12 | CT47:1-12 | CT51:1-12 | CT51:1-12 | CT48:1-12 | CT48:1-12 | CT48:1-12 |
| C106T | | | | | | | |
| C107T | CT54 | CT48 | CT52 | CT52 | CT49 | CT49 | CT49 |
| C108T | CT55 | CT49 | CT53 | CT53 | CT50 | CT50 | CT50 |
| C109T | CT56A | CT50 | CT54 | CT54 | CT51 | CT51 | CT51 |
| C110T | | | | | | | |
| C111T | CT56B | CT51 | CT55 | CT55 | CT52 | CT52 | CT52 |
| C84T | CT29 | CT52 | CT56 | CT56 | CT53 | CT53 | CT53 |
| C85T | CT30 | CT53 | CT57 | CT57 | CT54 | CT54 | CT54 |
| C86:A1-3T | CT31:A1-3 | CT54:A1-2<br>CT59:A | CT58:A1-3 | CT58:A1-3 | CT55:A1-3 | CT55:A1-3 | CT55:A1-3 |
| C86:B1-3T | CT31:B1-3 | CT54:B1-2<br>CT59:B | CT58:B1-3 | CT58:B1-3 | CT55:B1-3 | CT55:B1-3 | CT55:B1-3 |
| C86:C1-3T | CT31:C1-3 | CT54:C1-2<br>CT59:C | CT58:C1-3 | CT58:C1-3 | CT55:C1-3 | CT55:C1-3 | CT55:C1-3 |
| C86:D1-3T | CT31:D1-3 | CT54:D1-2<br>CT59:D | CT58:D1-3 | CT58:D1-3 | CT55:D1-3 | CT55:D1-3 | CT55:D1-3 |
| C86:E1-3T | CT31:E1-3 | CT54:E1-2<br>CT59:E | CT58:E1-3 | CT58:E1-3 | CT55:E1-3 | CT55:E1-3 | CT55:E1-3 |
| C86:F1-3T | CT31:F1-3 | CT54:F1-2<br>CT59:F | CT58:F1-3 | CT58:F1-3 | CT55:F1-3 | CT55:F1-3 | CT55:F1-3 |
| C86:G1-3T | CT31:G1-3 | CT54:G1-2<br>CT59:G | CT58:G1-3 | CT58:G1-3 | CT55:G1-3 | CT55:G1-3 | CT55:G1-3 |
| | CT31:H1-3 | CT54:H1-2<br>CT59:H | | | | | |
| C87:1-3T | CT32:A1-3 | CT55:1-2<br>CT60 | CT59:1-3 | CT59:1-3 | CT56:1-3 | CT56:1-3 | CT56:1-3 |
| | CT32:B1-3 | | | | | | |
| C88:1-3T | CT33:1-3 | CT56:1-2<br>CT61 | CT60:1-3 | CT60:1-3 | CT57:1-3 | CT57:1-3 | CT57:1-3 |
| | CT34A:1-3 | | | | | | |
| | CT34B:1-3 | | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | CT34C:1-3 | | | | | | |
| C89:1-3T | CT35:1-3 | { CT57:1-2 } | CT61:1-3 | CT61:1-3 | CT58:1-3 | CT58:1-3 | CT58:1-3 |
| | | { CT62 } | | | | | |
| | CT36 | CT58 | | | | | |
| | CT36A | | | | | | |
| C90T | CT36B | CT67 | | | | | |
| C91:1-2T | CT37A-B | | | | | | |
| C92T | CT38 | | | | | | |
| C93:AT | CT39:A | | | | | | |
| C93:BT | CT39:B | | | | | | |
| C93:CT | CT39:C | | | | | | |
| C93:DT | CT39:D | | | | | | |
| C93:ET | CT39:E | | | | | | |
| C93:FT | CT39:F | | | | | | |
| C93:GT | CT39:G | | | | | | |
| | CT39:H | | | | | | |
| | | CT63 | CT62 | CT62 | CT59 | CT59 | CT59 |
| | | CT64 | CT63 | CT63 | CT60 | CT60 | CT60 |
| | | CT65 | CT64 | CT64 | | | |
| | | CT66:A-C | CT65:A-C | CT65:A-C | | | |
| C118T | CT57 | CT68 | CT66 | CT66 | CT61 | CT61 | CT61 |
| C119:1-2T | CT58:1-5 | CT69:1-5 | CT67:1-5 | CT67:1-5 | CT62:1-2 | CT62:1-2 | CT62:1-2 |
| C120:1-2T | CT59:1-5 | CT70:1-5 | CT68:1-5 | CT68:1-5 | CT63:1-2 | CT63:1-2 | CT63:1-2 |
| C121:1T | CT60:1-4 | CT71:1-4 | CT69:1-4 | CT69:1-4 | CT64:1 | CT64:1 | CT64:1 |
| C121A:1-2T | | | | | | | |
| C122T | CT61 | CT72 | CT70 | CT70 | | | |
| C123T | CT62 | CT73 | | | | | |
| C124T | CT63 | CT74 | CT71 | CT71 | | | |
| C125T | CT64 | CT75 | CT72 | CT72 | | | |
| C126T | CT65 | CT76 | CT73 | CT73 | | | |
| C127T | CT66 | CT77 | | | | | |
| C128T | CT67 | CT78 | | | | | |
| | | | CT74:HR | CT74:HR | CT65:HR | CT65:HR | CT65:HR |
| | | | CT74:MN | CT74:MN | CT65:MN | CT65:MN | CT65:MN |
| | | | CT74:AP | CT74:AP | CT65:AP | CT65:AP | CT65:AP |
| C129T | | | CT75 | CT75 | CT66 | CT66 | CT66 |
| CMSTT | CTSTA | CTSTAT | CTSTAT | CTSTAT | | | |
| | | | CH1:HR | CH1:HR | CH1:HR | CH1:HR | CH1:HR |
| | | | CH1:MN | CH1:MN | CH1:MN | CH1:MN | CH1:MN |
| | | | CH1:AP | CH1:AP | CH1:AP | CH1:AP | CH1:AP |
| | | | CH2 | CH2 | CH2 | CH2 | CH2 |
| | | | CH2A | CH2A | CH2:A | CH2:A | CH2:A |
| | | | CH3 | CH3 | CH3 | CH3 | CH3 |
| | | | CH4 | CH4 | CH4 | CH4 | CH4 |
| | | | CH5 | CH5 | CH6 | CH6 | CH6 |
| | | | CH6 | CH6 | CH7 | CH7 | CH7 |
| | | | CH7 | CH7 | CH10 | CH10 | CH10 |
| | | | | | CH10:A | CH10:A | |
| | | | CH8 | CH8 | CH8 | CH8 | |
| | | | CH9 | CH9 | CH9 | CH9 | CH9 |
| | | | | | CH9:A | CH9:A | |
| | | | | | CH11 | CH11 | |
| | | | CH10 | CH10 | | | |
| | | | CH11 | CH11 | CH12 | CH12 | CH12 |
| C1T | CH1 | CH1 | CH12 | CH12 | CH13 | CH13 | CH13 |
| C2T | CH2 | CH2 | CH13 | CH13 | CH14 | CH14 | CH14 |
| | CH2A | CH3 | CH14 | CH14 | CH16 | CH16 | CH16 |
| | | | CH15 | CH15 | CH17 | CH17 | CH17 |
| | CH3 | CH4 | CH16 | CH16 | CH18 | CH18 | CH18 |
| C31:MT | CH3A:M | CH4:M | CH17:M | CH17:M | CH19:MO | CH19:MO | CH19:MO |
| C31:YT | CH3A:Y | CH4:Y | CH17:Y | CH17:Y | CH19:YR | CH19:YR | CH19:YR |
| C30MT | CH4:M | CH5:M | CH18:M | CH18:M | CH20:MO | CH20:MO | CH20:MO |
| C30YT | CH4:Y | CH5:Y | CH18:Y | CH18:Y | CH20:YR | CH20:YR | CH20:YR |
| C32:AT | CH5:A | CH6:A | CH19A | CH19A | CH21:A | CH21:A | CH21:A |
| C32:BT | CH5:B | CH6:B | CH19B | CH19B | CH21:B | CH21:B | CH21:B |
| C32:CT | CH5:C | CH6:C | CH19C | CH19C | CH21:C | CH21:C | CH21:C |
| C32:DT | CH5:D | CH6:D | CH19D | CH19D | CH21:D | CH21:D | CH21:D |
| | CH5:D1 | CH6:D1 | | | | | |
| | CH5:E | CH6:E | CH19E | CH19E | CH21:E | CH21:E | CH21:E |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C32:ET | CH5:F | CH6:F | CH19F | CH19F | CH21:F | CH21:F | CH21:F |
| C32:FT | CH5:G | CH6:G | CH19G | CH19G | CH21:G | CH21:G | CH21:G |
| C32:GT | CH5:H | CH6:H | CH19H | CH19H | CH21:H | CH21:H | CH21:H |
| C32:HT | CH5:I | CH6:I | CH19I | CH19I | CH21:I | CH21:I | CH21:I |
| | CH5:I1 | CH6:I1 | | | | | |
| C33T | CH6 | CH7 | { CH20 | CH20 | CH22 | CH22 | CH22 |
| | | | { CH20A-B | CH20A-B | CH22:A-B | CH22:A-B | CH22:A-B |
| | CH6A | CH8 | CH21 | CH21 | CH23 | CH23 | CH23 |
| C34T | CH7 | CH9 | CH22 | CH22 | CH24 | CH24 | CH24 |
| C35T | CH8 | CH10 | CH23 | CH23 | CH25 | CH25 | CH25 |
| C36T | CH9 | CH11 | CH24 | CH24 | CH26 | CH26 | CH26 |
| C37T | CH10 | CH12 | CH25 | CH25 | CH27 | CH27 | CH27 |
| C38T | CH11 | CH13 | CH26 | CH26 | CH28 | CH28 | CH28 |
| C39T | CH12 | CH14 | | | | | |
| | | CH15 | | | | | |
| C40T | CH13 | CH16 | | | | | |
| C41T | CH14 | CH17 | | | | | |
| C42T | CH15 | CH18 | | | | | |
| | | CH19 | | | | | |
| | | CH20 | | | | | |
| | | CH21 | | | | | |
| | | CH22 | | | | | |
| C43T | CH16 | CH23 | CH27 | CH27 | CH29 | CH29 | CH29 |
| | CH16A | CH24 | CH28 | CH28 | CH30 | CH30 | CH30 |
| C44T | CH17 | CH25 | CH29 | CH29 | CH31 | CH31 | CH31 |
| C45T | CH18 | CH26 | CH30 | CH30 | CH32 | CH32 | CH32 |
| C46MT | CH19:M | CH27:M | CH31:M | CH31:M | CH33:MO | CH33:MO | CH33:MO |
| C46YT | CH19:Y | CH27:Y | CH31:Y | CH31:Y | CH33:YR | CH33:YR | CH33:YR |
| | | | CH32 | CH32 | CH35 | CH35 | CH35 |
| C47T | CH20 | CH28 | CH33 | CH33 | CH34 | CH34 | CH34 |
| C48T | CH21 | CH29 | CH34 | CH34 | CH36 | CH36 | CH36 |
| C49T | CH22 | CH30 | CH35 | CH35 | CH37 | CH37 | CH37 |
| C50T | CH22A | CH31 | CH36 | CH36 | CH38 | CH38 | CH38 |
| | CH23:B | CH32 | CH37 | CH37 | CH39 | CH39 | CH39 |
| | CH23C | CH32A | CH37A | CH37A | CH39:A | CH39:A | CH39:A |
| C51T | CH24 | CH33 | CH38 | CH38 | CH40 | CH40 | CH40 |
| C52T | CH24A | | | | | | |
| C53T | CH24B | | | | | | |
| | CH25:1-3 | CH34:1-3 | CH39:1-3 | CH39:1-3 | | | |
| C55:1-3T | CH25A:1-3 | CH35:1-3 | CH40:1-3 | CH40:1-3 | CH42:1-3 | CH42:1-3 | CH42:1-3 |
| | CH26:1-3 | CH36:1-3 | CH41:1-3 | CH41:1-3 | CH43:1-3 | CH43:1-3 | CH43:1-3 |
| | CH26A:1-3 | | | | | | |
| | CH27:1-3 | | | | | | |
| | CH27:A1-3 | | | | | | |
| | CH28:1-3 | CH37:1-3 | CH42:1-3 | CH42:1-3 | CH44:1-3 | CH44:1-3 | CH44:1-3 |
| C54:M1-3T | CH28A:M1-3 | CH38:M1-3 | CH43:M1-3 | CH43:M1-3 | CH45:MO1-3 | CH45:MO1-3 | CH45:MO1-3 |
| C54:Y1-3T | CH28A:Y1-3 | CH38:Y1-3 | CH43:Y1-3 | CH43:Y1-3 | CH45:YR1-3 | CH45:YR1-3 | CH45:YR1-3 |
| C56:1-3T | CH29:1-3 | CH39:1-3 | CH44:1-3 | CH44:1-3 | CH46:1-3 | CH46:1-3 | CH46:1-3 |
| C57:1-3T | CH30:1-3 | CH40:1-3 | CH45:1-3 | CH45:1-3 | CH47:1-3 | CH47:1-3 | CH47:1-3 |
| C58:M1-3T | CH31:M1-3 | CH41:M1-3 | CH46:M1-3 | CH46:M1-3 | CH48:MO1-3 | CH48:MO1-3 | CH48:MO1-3 |
| C58:Y1-3T | CH31:Y1-3 | CH41:Y1-3 | CH46:Y1-3 | CH46:Y1-3 | CH48:YR1-3 | CH48:YR1-3 | CH48:YR1-3 |
| C59:1-3T | CH32:1-3 | CH42:1-3 | CH47:1-3 | CH47:1-3 | CH49:1-3 | CH49:1-3 | CH49:1-3 |
| C60:1-3T | CH33:1-3 | CH43:1-3 | CH48:1-3 | CH48:1-3 | CH50:1-3 | CH50:1-3 | CH50:1-3 |
| C61:M1-3T | CH34:M1-3 | CH44:M1-3 | CH49:M1-3 | CH49:M1-3 | CH51:MO1-3 | CH51:MO1-3 | CH51:MO1-3 |
| C61:Y1-3T | CH34:Y1-3 | CH44:Y1-3 | CH49:Y1-3 | CH49:Y1-3 | CH51:YR1-3 | CH51:YR1-3 | CH51:YR1-3 |
| C62:A1-3T | CH35:A1-3 | CH45:A1-3 | CH50:A1-3 | CH50:A1-3 | CH52:YR1-3 | CH52:YR1-3 | CH52:YR1-3 |
| C62:B1-3T | CH35:B1-3 | CH45:B1-3 | CH50:B1-3 | CH50:B1-3 | CH52:MO1-3 | CH52:MO1-3 | CH52:MO1-3 |
| C63:1-3T | CH36:1-3 | CH46:1-3 | CH51:1-3 | CH51:1-3 | CH53:1-3 | CH53:1-3 | CH53:1-3 |
| | CH36A:1-3 | CH47:1-3 | CH52:1-3 | CH52:1-3 | CH54:1-3 | CH54:1-3 | CH54:1-3 |
| | CH36B:M1-3 | CH48:M1-3 | | | | | |
| | CH36B:Y1-3 | CH48:Y1-3 | | | | | |
| | CH36C:1-3 | CH49:1-3 | CH53:1-3 | CH53:1-3 | CH55:1-3 | CH55:1-3 | CH55:1-3 |
| C64:A1-3T | CH37:A1-3 | CH50:A1-3 | CH54:A1-3 | CH54:A1-3 | CH56:A1-3 | CH56:A1-3 | CH56:A1-3 |
| | CH37:B1-3 | CH50:B1-3 | CH54:B1-3 | CH54:B1-3 | CH56:B1-3 | CH56:B1-3 | CH56:B1-3 |
| C64:B1-3T | CH37:C1-3 | CH50:C1-3 | CH54:C1-3 | CH54:C1-3 | CH56:C1-3 | CH56:C1-3 | CH56:C1-3 |
| | CH37:D1-3 | CH50:D1-3 | CH54:D1-3 | CH54:D1-3 | CH56:D1-3 | CH56:D1-3 | CH56:D1-3 |
| C65:A1-3T | CH38:A1-3 | CH51:A1-3 | CH55:A1-3 | CH55:A1-3 | CH57:A1-3 | CH57:A1-3 | CH57:A1-3 |
| C65:B1-3T | CH38:B1-3 | CH51:B1-3 | CH55:B1-3 | CH55:B1-3 | | | |
| | CH38:C1-3 | CH51:C1-3 | CH55:C1-3 | CH55:C1-3 | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | CH38:D1-3 | CH51:E1-3 | CH55:D1-3 | CH55:D1-3 | | | |
| | CH38:E1-3 | CH51:F1-3 | CH55:E1-3 | CH55:E1-3 | | | |
| C65:M1-3T | CH38:M1-3 | CH51:M1-3 | CH55F:M1-3 | CH55F:M1-3 | CH57:MO1-3 | CH57:MO1-3 | CH57:MO1-3 |
| C65:D1-3T | | CH51:D1-3 | CH55F:D1-3 | CH55F:D1-3 | CH57:B1-3D | CH57:B1-3D | CH57:BD1-3 |
| C65:Y1-3T | CH38:Y1-3 | CH51:Y1-3 | CH55F:Y1-3 | CH55F:Y1-3 | CH57:YR1-3 | CH57:YR1-3 | CH57:YR1-3 |
| C67:A1-3T | CH39:A1-3 | CH52:A1-3 | CH56:A1-3 | CH56:A1-3 | CH58:A1-3 | CH58:A1-3 | CH58:A1-3 |
| C67:B1-3T | CH39:B1-3 | CH52:B1-3 | CH56:B1-3 | CH56:B1-3 | CH58:B1-3 | CH58:B1-3 | CH58:B1-3 |
| C66:1-3T | CH40:1-3 | CH53:1-3 | CH57:1-3 | CH57:1-3 | CH59:1-3 | CH59:1-3 | CH59:1-3 |
| C68:1-3T | CH41:1-3 | CH54:1-3 | CH58:1-3 | CH58:1-3 | CH60:1-3 | CH60:1-3 | CH60:1-3 |
| C69:1-3T | CH42:1-3 | CH55:1-3 | CH59:1-3 | CH59:1-3 | CH61:1-3 | CH61:1-3 | CH61:1-3 |
| C70:1-3T | CH43:1-3 | CH56:1-3 | CH60:1-3 | CH60:1-3 | CH62:1-3 | CH62:1-3 | CH62:1-3 |
| C71:1-3T | CH44:1-3 | CH57:1-3 | CH61:1-3 | CH61:1-3 | CH63:1-3 | CH63:1-3 | CH63:1-3 |
| C72T | CH45 | CH58 | CH62 | CH62 | | | |
| C73T | CH46 | CH59 | CH63 | CH63 | | | |
| C74T | CH47 | CH60 | CH64 | CH64 | CH64 | CH64 | CH64 |
| | CH48:1-2 | CH61:1-2 | CH65:1-2 | CH65:1-2 | | | |
| C75:M1-2T | CH48A:M1-2 | CH62:M1-2 | CH66:M1-2 | CH66:M1-2 | CH66:MO1-2 | CH66:MO1-2 | CH66:MO1-2 |
| C75:Y1-2T | CH48A:Y1-2 | CH62:Y1-2 | CH66:Y1-2 | CH66:Y1-2 | CH66:YR1-2 | CH66:YR1-2 | CH66:YR1-2 |
| C76:A1-2T | CH49:A1-2 | CH63:A1-2 | CH67:A1-2 | CH67:A1-2 | CH67:A1-2 | CH67:A1-2 | CH67:A1-2 |
| | CH49:B1-2 | CH63:B1-2 | CH67:B1-2 | CH67:B1-2 | CH67:B1-2 | CH67:B1-2 | CH67:B1-2 |
| C76:B1-2T | CH49:C1-2 | CH63:C1-2 | CH67:C1-2 | CH67:C1-2 | CH67:C1-2 | CH67:C1-2 | CH67:C1-2 |
| | CH49:D1-2 | CH63:D1-2 | CH67:D1-2 | CH67:D1-2 | CH67:D1-2 | CH67:D1-2 | CH67:D1-2 |
| | | CH64:1-2 | CH68:1-2 | CH68:1-2 | CH68:1-2 | CH68:1-2 | CH68:1-2 |
| | | CH65:1-2 | CH69:1-2 | CH69:1-2 | CH69:1-2 | CH69:1-2 | CH69:1-2 |
| C77:1-2T | CH50:1-2 | CH66:1-2 | CH70:1-2 | CH70:1-2 | CH70:1-2 | CH70:1-2 | CH70:1-2 |
| C78:1-2T | CH51:1-2 | CH67:1-2 | CH71:1-2 | CH71:1-2 | CH71:1-2 | CH71:1-2 | CH71:1-2 |
| | CH52:A-H | | CH72A-H | CH72A-H | CH72 | CH72 | CH72 |
| | CH52A | | CH73 | CH73 | CH73 | CH73 | CH73 |
| | | | CH74 | CH74 | CH75 | CH75 | CH75 |
| | | | CH75 | CH75 | CH75:A | CH75:A | CH75:A |
| | | | CH75Z:1-2 | CH75Z:1-2 | CH76:A-B | CH76:A-B | CH76:A-B |
| C79T | CH53 | CH68 | CH76 | CH76 | CH77 | CH77 | CH77 |
| C80T | CH54:A | CH69:A | CH77:A | CH77:A | CH78:A | CH78:A | CH78:A |
| | CH54:B | CH69:B | CH77:B | CH77:B | CH78:B | CH78:B | CH78:B |
| | CH55 | CH70 | CH78 | CH78 | CH79 | CH79 | CH79 |
| C81T | CH56:A | CH71:A | CH79:A | CH79:A | CH80:A | CH80:A | CH80:A |
| | CH56:B | CH71:B | CH79:B | CH79:B | CH80:B | CH80:B | CH80:B |
| C82T | CH57 | CH72 | CH80 | CH80 | | | |
| C83T | CH57A | CH73 | CH81 | CH81 | CH81 | CH81 | CH81 |
| C94:1T | CH67:1 | CH74:1 | CH82:1 | CH82:1 | CH82:1 | CH82:1 | CH82:1 |
| C97A:A1T | CH69:A1 | CH76:A1 | CH83:A1 | CH83:A1 | CH83:A1 | CH83:A1 | CH83:A1 |
| C97A:B1T | CH69:B1 | CH76:B1 | CH83:B1 | CH83:B1 | CH83:B1 | CH83:B1 | CH83:B1 |
| C97A:C1T | CH69:C1 | CH76:C1 | CH83:C1 | CH83:C1 | CH83:C1 | CH83:C1 | CH83:C1 |
| C97A:D1T | CH69:D1 | CH76:D1 | CH83:D1 | CH83:D1 | CH83:D1 | CH83:D1 | CH83:D1 |
| C97:A1T | CH68:A1 | CH75:A1 | CH84:A1 | CH84:A1 | CH84:A1 | CH84:A1 | CH84:A1 |
| C97:B1T | CH68:B1 | CH75:B1 | CH84:B1 | CH84:B1 | CH84:B1 | CH84:B1 | CH84:B1 |
| C97:C1T | CH68:C1 | CH75:C1 | CH84:C1 | CH84:C1 | CH84:C1 | CH84:C1 | CH84:C1 |
| | CH68:D1 | CH75:D1 | CH84:D1 | CH84:D1 | CH84:D1 | CH84:D1 | CH84:D1 |
| | CH68:E1 | CH75:E1 | CH84:E1 | CH84:E1 | CH84:E1 | CH84:E1 | CH84:E1 |
| C94:2T | CH67:2 | CH74:2 | CH82:2 | CH82:2 | CH82:2 | CH82:2 | CH82:2 |
| C97A:A2T | CH69:A2 | CH76:A2 | CH83:A2 | CH83:A2 | CH83:A2 | CH83:A2 | CH83:A2 |
| C97A:B2T | CH69:B2 | CH76:B2 | CH83:B2 | CH83:B2 | CH83:B2 | CH83:B2 | CH83:B2 |
| C97A:C2T | CH69:C2 | CH76:C2 | CH83:C2 | CH83:C2 | CH83:C2 | CH83:C2 | CH83:C2 |
| C97A:D2T | CH69:D2 | CH76:D2 | CH83:D2 | CH83:D2 | CH83:D2 | CH83:D2 | CH83:D2 |
| C97:A2T | CH68:A2 | CH75:A2 | CH84:A2 | CH84:A2 | CH84:A2 | CH84:A2 | CH84:A2 |
| C97:B2T | CH68:B2 | CH75:B2 | CH84:B2 | CH84:B2 | CH84:B2 | CH84:B2 | CH84:B2 |
| C97:C2T | CH68:C2 | CH75:C2 | CH84:C2 | CH84:C2 | CH84:C2 | CH84:C2 | CH84:C2 |
| | CH68:D2 | CH75:D2 | CH84:D2 | CH84:D2 | CH84:D2 | CH84:D2 | CH84:D2 |
| | CH68:E2 | CH75:E2 | CH84:E2 | CH84:E2 | CH84:E2 | CH84:E2 | CH84:E2 |
| C97:A3T | | | | | | | |
| C97:B3T | | | | | | | |
| C97:C3T | | | | | | | |
| C94:4T | CH67:3 | CH74:3 | CH82:3 | CH82:3 | CH82:3 | CH82:3 | CH82:3 |
| C97:A4T | CH68:A3 | CH75:A3 | CH84:A3 | CH84:A3 | CH84:A3 | CH84:A3 | CH84:A3 |
| C97:B4T | CH68:B3 | CH75:B3 | CH84:B3 | CH84:B3 | CH84:B3 | CH84:B3 | CH84:B3 |
| C97:C4T | CH68:C3 | CH75:C3 | CH84:C3 | CH84:C3 | CH84:C3 | CH84:C3 | CH84:C3 |
| | CH68:D3 | CH75:D3 | CH84:D3 | CH84:D3 | CH84:D3 | CH84:D3 | CH84:D3 |
| | CH68:E3 | CH75:E3 | CH84:E3 | CH84:E3 | CH84:E3 | CH84:E3 | CH84:E3 |
| | CH67:4A | CH74:4A | CH82:OF | CH82:OF | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C94:5T | CH67:4B | CH74:4B | CH82:4 | CH82:4 | CH82:4 | CH82:4 | CH82:4 |
| C97A:A5T | CH69:A4 | CH76:A4 | CH83:A4 | CH83:A4 | CH83:A4 | CH83:A4 | CH83:A4 |
| C97A:B5T | CH69:B4 | CH76:B4 | CH83:B4 | CH83:B4 | CH83:B4 | CH83:B4 | CH83:B4 |
| C97A:C5T | CH69:C4 | CH76:C4 | CH83:C4 | CH83:C4 | CH83:C4 | CH83:C4 | CH83:C4 |
| C97A:D5T | CH69:D4 | CH76:D4 | CH83:D4 | CH83:D4 | CH83:D4 | CH83:D4 | CH83:D4 |
| C97:A5T | CH68:A4 | CH75:A4 | CH84:A4 | CH84:A4 | CH84:A4 | CH84:A4 | CH84:A4 |
| C97:B5T | CH68:B4 | CH75:B4 | CH84:B4 | CH84:B4 | CH84:B4 | CH84:B4 | CH84:B4 |
| C97:C5T | CH68:C4 | CH75:C4 | CH84:C4 | CH84:C4 | CH84:C4 | CH84:C4 | CH84:C4 |
| | CH68:D4 | CH75:D4 | CH84:D4 | CH84:D4 | CH84:D4 | CH84:D4 | CH84:D4 |
| | CH68:E4 | CH75:E4 | CH84:E4 | CH84:E4 | CH84:E4 | CH84:E4 | CH84:E4 |
| C94:6T | CH67:5 | CH74:5 | CH82:5 | CH82:5 | CH82:6 | CH82:6 | CH82:6 |
| C97:A6T | CH68:A5 | CH75:A5 | CH84:A5 | CH84:A5 | CH84:A6 | CH84:A6 | CH84:A6 |
| C97:B6T | CH68:B5 | CH75:B5 | CH84:B5 | CH84:B5 | CH84:B6 | CH84:B6 | CH84:B6 |
| C97:C6T | CH68:C5 | CH75:C5 | CH84:C5 | CH84:C5 | CH84:C6 | CH84:C6 | CH84:C6 |
| | CH68:D5 | CH75:D5 | CH84:D5 | CH84:D5 | CH84:D6 | CH84:D6 | CH84:D6 |
| | CH68:E5 | CH75:E5 | CH84:E5 | CH84:E5 | CH84:E6 | CH84:E6 | CH84:E6 |
| | CH68:F5 | CH75:F5 | CH84:F5 | CH84:F5 | CH84:F6 | CH84:F6 | CH84:F6 |
| C94:7T | CH67:6 | CH74:6 | CH82:6 | CH82:6 | CH82:5 | CH82:5 | CH82:5 |
| C97:A7T | CH68:A6 | CH75:A6 | CH84:A6 | CH84:A6 | CH84:A5 | CH84:A5 | CH84:A5 |
| | CH68:D6 | CH75:D6 | CH84:D6 | CH84:D6 | CH84:D5 | CH84:D5 | CH84:D5 |
| | CH68:E6 | CH75:E6 | CH84:E6 | CH84:E6 | CH84:E5 | CH84:E5 | CH84:E5 |
| | CH68:F6 | CH75:F6 | CH84:F6 | CH84:F6 | CH84:F5 | CH84:F5 | CH84:F5 |
| C97:A8T | | | | | | | |
| C97:B8T | | | | | | | |
| C97:C8T | | | | | | | |
| C94:9T | CH67:7 | CH74:7 | CH82:7 | CH82:7 | CH82:7 | CH82:7 | CH82:7 |
| C97:A9T | CH68:A7 | CH75:A7 | CH84:A7 | CH84:A7 | CH84:A7 | CH84:A7 | CH84:A7 |
| | CH68:D7 | CH75:D7 | CH84:D7 | CH84:D7 | CH84:D7 | CH84:D7 | CH84:D7 |
| | CH68:E7 | CH75:E7 | CH84:E7 | CH84:E7 | CH84:E7 | CH84:E7 | CH84:E7 |
| | CH68:F7 | CH75:F7 | CH84:F7 | CH84:F7 | CH84:F7 | CH84:F7 | CH84:F7 |
| | CH69A:A1-5 | CH77:A1-5 | CH85:A1-5 | CH85:A1-5 | CH85:A1-2 | CH85:A1-2 | CH85:A1-2 |
| | CH69A:B1-5 | CH77:B1-5 | CH85:B1-5 | CH85:B1-5 | CH85:B1-2 | CH85:B1-2 | CH85:B1-2 |
| | CH69A:C1-5 | CH77:C1-5 | CH85:C1-5 | CH85:C1-5 | CH85:C1-2 | CH85:C1-2 | CH85:C1-2 |
| | CH69A:D1-5 | CH77:D1-5 | CH85:D1-5 | CH85:D1-5 | CH85:D1-2 | CH85:D1-2 | CH85:D1-2 |
| | CH69A:E1-5 | CH77:E1-5 | CH85:E1-5 | CH85:E1-5 | CH85:E1-2 | CH85:E1-2 | CH85:F1-2 |
| | CH69A:F1-5 | CH77:F1-5 | CH85:F1-5 | CH85:F1-5 | CH85:F1-2 | CH85:F1-2 | CH85:E1-2 |
| | CH69A:G1-5 | CH77:G1-5 | CH85:G1-5 | CH85:G1-5 | CH85:G1-2 | CH85:G1-2 | CH85:G1-2 |
| | CH69B:A1-5 | CH78:A1-5 | CH86:A1-5 | CH86:A1-5 | CH86:A1-2 | CH86:A1-2 | CH86:A1-2 |
| | CH69B:B1-5 | CH78:B1-5 | CH86:B1-5 | CH86:B1-5 | CH86:B1-2 | CH86:B1-2 | CH86:B1-2 |
| | CH69B:C1-5 | CH78:C1-5 | CH86:C1-5 | CH86:C1-5 | CH86:C1-2 | CH86:C1-2 | CH86:C1-2 |
| | CH69B:D1-5 | CH78:D1-5 | CH86:D1-5 | CH86:D1-5 | CH86:D1-2 | CH86:D1-2 | CH86:D1-2 |
| C98:AT | CH70:A | CH79:A | | | | | |
| C98:BT | CH70:B | CH79:C | | | | | |
| C98:CT | CH70:C | CH79:B | | | | | |
| C98:DT | CH70:D | CH79:D | | | | | |
| | CH70:E | CH79:E | | | | | |
| C98:ET | CH70:F | CH79:F | | | | | |
| C98:FT | CH70:G | CH79:H | | | | | |
| C98:GT | CH70:H | CH79:I | | | | | |
| | | CH79:J | | | | | |
| C98:HT | CH70:I | CH79:K | | | | | |
| C98:IT | CH70:J | CH79:L | | | | | |
| C98:JT | CH70:K | | | | | | |
| C99:AT | CH71:A | | | | | | |
| C99:BT | CH71:B | CH79:G | | | | | |
| C99:CT | CH71:C | CH79:M | | | | | |
| C99:DT | CH71:D | CH79:N | | | | | |
| C99:ET | CH71:E | CH79:O | | | | | |
| C99:FT | CH71:F | CH79:P | | | | | |
| C99:GT | CH71:G | CH79:Q | | | | | |
| C100T | | | | | | | |
| C101AT | CH71A | CH80 | CH88 | CH88 | CH88 | CH88 | CH88 |
| C102:1-14T | CH72:1-14 | CH81:1-12 | CH89:1-12 | CH89:1-12 | CH89:1-12 | CH89:1-12 | CH89:1-12 |
| | CH73:1-14 | CH82:1-12 | CH90:1-12 | CH90:1-12 | CH90:1-12 | CH90:1-12 | CH90:1-12 |
| | CH74A:2-14 | CH83:2-12 | CH90A:2-12 | CH90A:2-12 | | | |
| | CH74B:2-14 | CH84:2-12 | CH90B:2-12 | CH90B:2-12 | | | |
| | CH74C:1-14 | | CH90C:1-12 | CH90C:1-12 | | | |
| | CH74D:1-14 | | CH90D:1-12 | CH90D:1-12 | | | |
| C103:1-14T | CH74E:1-14 | CH85:1-12 | CH91:1-12 | CH91:1-12 | CH91:1-12 | CH91:1-12 | CH91:1-12 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C104:1-14T | CH75:1-14 | CH86:1-12 | CH92:1-12 | CH92:1-12 | CH92:1-12 | CH92:1-12 | CH92:1-12 |
| | | | CH93:1-12 | CH93:1-12 | CH93:1-12 | CH93:1-12 | CH93:1-12 |
| | | | CH94:1-12 | CH94:1-12 | CH94:1-12 | CH94:1-12 | CH94:1-12 |
| | | | CH95:1-12 | CH95:1-12 | CH95:1-12 | CH95:1-12 | CH95:1-12 |
| | | | CH96:1-12 | CH96:1-12 | | | |
| | | | CH97:A1-12 | CH97:A1-12 | CH96:A1-12 | CH96:A1-12 | CH96:A1-12 |
| | | | CH97:B1-12 | CH97:B1-12 | CH96:B1-12 | CH96:B1-12 | CH96:B1-12 |
| | | | CH97:C1-12 | CH97:C1-12 | CH96:C1-12 | CH96:C1-12 | CH96:C1-12 |
| | | | CH97:D1-12 | CH97:D1-12 | CH96:D1-12 | CH96:D1-12 | CH96:D1-12 |
| | | | CH97:E1-12 | CH97:E1-12 | CH96:E1-12 | CH96:E1-12 | CH96:E1-12 |
| | | | CH97:F1-12 | CH97:F1-12 | CH96:F1-12 | CH96:F1-12 | CH96:F1-12 |
| | | | CH97:G1-12 | CH97:G1-12 | CH96:G1-12 | CH96:G1-12 | CH96:G1-12 |
| | | | CH97:H1-12 | CH97:H1-12 | CH96:H1-12 | CH96:H1-12 | CH96:H1-12 |
| | | | CH97:I1-12 | CH97:I1-12 | CH96:I1-12 | CH96:I1-12 | CH96:I1-12 |
| C105:1-14T | | | | | | | |
| C105A1-14T | CH76:1-14 | CH87:1-12 | CH98:1-12 | CH98:1-12 | CH97:1-12 | CH97:1-12 | CH97:1-12 |
| C106T | | | | | | | |
| C112T | CH77 | CH88 | CH99 | CH99 | | | |
| C113T | CH78 | CH89 | CH100 | CH100 | | | |
| C114T | CH79 | CH90 | CH101 | CH101 | CH98 | CH98 | CH98 |
| C115:A-NT | CH80:A-N | CH91:A-N | CH102:A-N | CH102:A-N | CH99:A-N | CH99:A-N | CH99:A-N |
| C116:AT | CH81:A | CH92:A | CH103:A | CH103:A | | | |
| C116:BT | CH81:B | CH92:B | CH103:B | CH103:B | | | |
| C116:CT | CH81:C | CH92:C | CH103:C | CH103:C | | | |
| | CH81:D | CH92:D | CH103:D | CH103:D | | | |
| C117T | CH82 | CH93 | CH104 | CH104 | | | |
| | | | CH105 | CH105 | CH100 | CH100 | CH100 |
| | | | CH106 | CH106 | CH74 | CH74 | CH74 |
| C84T | CH58 | CH94 | CH107 | CH107 | CH101 | CH101 | CH101 |
| C85T | CH58A | CH95 | CH108 | CH108 | CH102 | CH102 | CH102 |
| C86:A1-3T | CH59:A1-3 | CH96:A1-2<br>CH101:A | CH109:A1-3 | CH109:A1-3 | CH103:A1-3 | CH103:A1-3 | CH103:A1-3 |
| C86:B1-3T | CH59:B1-3 | CH96:B1-2<br>CH101:B | CH109:B1-3 | CH109:B1-3 | CH103:B1-3 | CH103:B1-3 | CH103:B1-3 |
| C86:C1-3T | CH59:C1-3 | CH96:C1-2<br>CH101:C | CH109:C1-3 | CH109:C1-3 | CH103:C1-3 | CH103:C1-3 | CH103:C1-3 |
| C86:D1-3T | CH59:D1-3 | CH96:D1-2<br>CH101:D | CH109:D1-3 | CH109:D1-3 | CH103:D1-3 | CH103:D1-3 | CH103:D1-3 |
| C86:E1-3T | CH59:E1-3 | CH96:E1-2<br>CH101:E | CH109:E1-3 | CH109:E1-3 | CH103:E1-3 | CH103:E1-3 | CH103:E1-3 |
| C86:F1-3T | CH59:F1-3 | CH96:F1-2<br>CH101:F | CH109:F1-3 | CH109:F1-3 | CH103:F1-3 | CH103:F1-3 | CH103:F1-3 |
| C86:G1-3T | CH59:G1-3 | CH96:G1-2<br>CH101:G | CH109:G1-3 | CH109:G1-3 | CH103:G1-3 | CH103:G1-3 | CH103:G1-3 |
| | CH59:H1-3 | CH96:H1-2<br>CH101:H | | | | | |
| C87:1-3T | CH60:A1-3 | CH97:1-2<br>CH102 | CH110:1-3 | CH110:1-3 | CH104:1-3 | CH104:1-3 | CH104:1-3 |
| | CH60:B1-3 | | | | | | |
| C88:1-3T | CH61:1-3 | CH98:1-2<br>CH103 | CH111:1-3 | CH111:1-3 | CH105:1-3 | CH105:1-3 | CH105:1-3 |
| | CH61A:1-3 | | | | | | |
| | CH61B:1-3 | | | | | | |
| | CH61C:1-3 | | | | | | |
| C89:1-3T | CH62:1-3 | CH99:1-2<br>CH104 | CH112:1-3 | CH112:1-3 | CH106:1-3 | CH106:1-3 | CH106:1-3 |
| | | CH105 | CH113 | CH113 | CH107 | CH107 | CH107 |
| | | CH106 | CH114 | CH114 | CH108 | CH108 | CH108 |
| | | CH107 | CH115 | CH115 | | | |
| | | CH108:A-C | CH116:A-C | CH116:A-C | | | |
| | CH63 | CH100 | | | | | |
| | CH63A | | | | | | |
| C90T | CH63B | CH109 | | | | | |
| C91:1T<br>C91:2T | CH64 | | | | | | |
| C92T | CH65 | | | | | | |
| C93:AT | CH66:A | | | | | | |
| C93:BT | CH66:B | | | | | | |
| C93:CT | CH66:C | | | | | | |

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|---|---|---|---|---|---|---|---|
| C93:DT | CH66:D | | | | | | |
| C93:ET | CH66:E | | | | | | |
| C93:FT | CH66:F | | | | | | |
| C93:GT | CH66:G | | | | | | |
| | CH66:H | | | | | | |
| C118T | CH83 | CH110 | CH117 | CH117 | CH109 | CH109 | CH109 |
| C119:1-2T | CH84:1-5 | CH111:1-5 | CH118:1-5 | CH118:1-5 | CH110:1-2 | CH110:1-2 | CH110:1-2 |
| C120:1-2T | CH85:1-5 | CH112:1-5 | CH119:1-5 | CH119:1-5 | CH111:1-2 | CH111:1-2 | CH111:1-2 |
| C121:1T | CH86:1-4 | CH113:1-4 | CH120:1-4 | CH120:1-4 | CH112:1 | CH112:1 | CH112:1 |
| C121A:1-2T | | | | | | | |
| C122T | CH87 | CH114 | CH121 | CH121 | | | |
| C123T | CH88 | CH115 | | | | | |
| C124T | CH89 | CH116 | CH122 | CH122 | | | |
| C125T | CH90 | CH117 | CH123 | CH123 | { CH5 | CH5 | CH5 |
| | | | | | { CH15 | CH15 | CH15 |
| C126T | CH91 | CH118 | CH124 | CH124 | | | |
| C127T | CH92 | CH119 | | | | | |
| C128T | CH93 | CH120 | | | | | |
| | | | CH125:HR | CH125:HR | CH113:HR | CH113:HR | CH113:HR |
| | | | CH125:MN | CH125:MN | CH113:MN | CH113:MN | CH113:MN |
| | | | CH125:AP | CH125:AP | CH113:AP | CH113:AP | CH113:AP |
| C129T | | | CH126 | CH126 | CH114 | CH114 | CH114 |
| CMSTT | CHSTA | CHSTAT | CHSTAT | CHSTAT | | | |
| | | | CM1:HR | CM1:HR | CM1:HR | CM1:HR | CM1:HR |
| | | | CM1:MN | CM1:MN | CM1:MN | CM1:MN | CM1:MN |
| | | | CM1:AP | CM1:AP | CM1:AP | CM1:AP | CM1:AP |
| C1M | CM1 | CM1 | CM2 | CM2 | CM2 | CM2 | CM2 |
| C2M | CM2 | CM2 | CM3 | CM3 | CM3 | CM3 | CM3 |
| | CM2A | CM3 | CM4 | CM4 | CM5 | CM5 | CM5 |
| C3M | CM3 | CM4 | CM5 | CM5 | CM6 | CM6 | CM6 |
| C4:1-3M | CM4:1-3 | | | | | | |
| C5:1-3M | CM5:1-3 | CM5:1-3 | CM6:1-3 | CM6:1-3 | CM7:1-3 | CM7:1-3 | CM7:1-3 |
| C6:1-3M | CM6:1-3 | CM6:1-3 | CM7:1-3 | CM7:1-3 | CM8:1-3 | CM8:1-3 | CM8:1-3 |
| C7:M1-3M | CM7:1-3M | CM7:M1-3 | | | | | |
| C7:D1-3M | CM7:1-3D | CM7:D1-3 | | | | | |
| C7:Y1-3M | CM7:1-3Y | CM7:Y1-3 | | | | | |
| C8:1-3M | CM8:1-3 | CM8:1-3 | CM8:1-3 | CM8:1-3 | CM9:1-3 | CM9:1-3 | CM9:1-3 |
| C9:1-3M | { CM9:1-3A } | CM9:1-3 | CM9:1-3 | CM9:1-3 | CM10:1-3 | CM10:1-3 | CM10:1-3 |
| | { CM9:1-3B } | | | | | | |
| | CM10:1 | CM10:1 | CM10:1 | CM10:1 | CM11:1 | CM11:1 | CM11:1 |
| C10:2-3M | CM10A:2-3 | CM10A:2-3 | CM10A:2-3 | CM10A:2-3 | CM12:2-3 | CM12:2-3 | CM12:2-3 |
| C11M | CM11 | CM11 | CM11 | CM11 | | | |
| C12M | CM12 | CM12 | CM12 | CM12 | | | |
| | | | | | CM13 | CM13 | CM13 |
| C13:AM | CM14:A | | | | | | |
| C13:BM | CM14:B | | | | | | |
| C13:CM | CM14:C | | | | | | |
| C13:DM | CM14:D | | | | | | |
| C13:EM | CM14:E | | | | | | |
| C13:FM | CM14:F | | | | | | |
| C13:GM | CM14:G | | | | | | |
| C13:HM | CM14:H | | | | | | |
| | CM14:I | | | | | | |
| | CM14:J | | | | | | |
| C13:IM | CM14:K | | | | | | |
| C14M | CM15 | | | | | | |
| C15M | CM16 | | | | | | |
| C16M | CM13 | CM13 | CM13 | CM13 | CM14:A | CM14:A | CM14:A |
| C18M | CM18 | | | | | | |
| C19M | CM19 | CM14 | CM14 | CM14 | | | |
| C17M | CM17 | CM14A:A | CM14A:A | CM14A:A | CM14:B | CM14:B | CM14:B |
| | | | | | CM14:C | CM14:C | CM14:C |
| | | | | | CM14:D | CM14:D | CM14:D |
| | | CM14A:B | CM14A:B | CM14A:B | CM14:E | CM14:E | CM14:E |
| C20M | CM20 | CM15 | CM15 | CM15 | CM15 | CM15 | CM15 |
| | CM20A | CM16 | CM16 | CM16 | CM16 | CM16 | CM16 |
| C21:A1-3M | CM21:A1-3 | CM17:A1-3 | CM17:A1-3 | CM17:A1-3 | CM17:A1-3 | CM17:A1-3 | CM17:A1-3 |
| | | | CM17X | CM17X | CM17:X1 | CM17:X1 | CM17:X1 |
| C21:B1-3M | CM21:B1-3 | CM17:B1-3 | CM17:B1-3 | CM17:B1-3 | CM17:B1-3 | CM17:B1-3 | CM17:B1-3 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C21:C1-3M | CM21:C1-3 | CM17:C1-3 | CM17:C1-3 | CM17:C1-3 | CM17:C1-3 | CM17:C1-3 | CM17:C1-3 |
| C22:2-3M | CM22:2-3 | CM18:2-3 | CM18:2-3 | CM18:2-3 | CM18:2-3 | CM18:2-3 | CM18:2-3 |
| C23:1M | CM23 | CM19 | CM19 | CM19 | CM19 | CM19 | CM19 |
| | | | CM19A:1-3 | CM19X:1-3 | CM20:1-3 | CM20:1-3 | CM20:1-3 |
| | CM23A:1,3 | CM20:1,3 | CM20:1,3 | CM20:1,3 | CM21:1,3 | CM21:1,3 | CM21:1,3 |
| C25:1-3M | CM25:1-3 | CM21:1-3 | CM21:1-3 | CM21:1-3 | CM22:1-3 | CM22:1-3 | CM22:1-3 |
| C24:M1-3M | CM24:1-3M | CM22:1-3 | CM22:1-3 | CM22:1-3 | CM23:1-3 | CM23:1-3 | CM23:1-3 |
| C24:Y1-3M | CM24:1-3Y | | | | | | |
| C26:1-3M | CM26:1-3 | CM23:1-3 | CM23:1-3 | CM23:1-3 | CM24:1-3 | CM24:1-3 | CM24:1-3 |
| C27:1-3M | CM27:1-3 | CM24:1-3 | CM24:1-3 | CM24:1-3 | CM25:1-3 | CM25:1-3 | CM25:1-3 |
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| | | CM26:1-3 | CM26:1-3 | CM26:1-3 | CM27:1-3 | CM27:1-3 | CM27:1-3 |
| | | CM27:1-3 | CM27:1-3 | CM27:1-3 | CM28:1-3 | CM28:1-3 | CM28:1-3 |
| | | CM28:1-3 | CM28:1-3 | CM28:1-3 | CM29:1-3 | CM29:1-3 | CM29:1-3 |
| | CM28 | CM28A:1 | CM28A:1 | CM28A:1 | CM30:1 | CM30:1 | CM30:1 |
| C28M | | | | | | | |
| C29:AM | CM29:A | CM29:A | CM29:A | CM29:A | CM31:A | CM31:A | CM31:A |
| C29:BM | CM29:B | CM29:B | CM29:B | CM29:B | CM31:B | CM31:B | CM31:B |
| C29:CM | CM29:C | CM29:C | CM29:C | CM29:C | | | |
| C29:DM | CM29:D | CM29:D | CM29:D | CM29:D | CM31:C | CM31:C | CM31:C |
| C30M | CM30 | CM30 | CM30 | CM30 | CM32 | CM32 | CM32 |
| C31M | CM31 | CM31 | CM31 | CM31 | CM33 | CM33 | CM33 |
| C32M | CM32 | CM32 | CM32 | CM32 | | | |
| C33M | CM33 | CM33 | CM33 | CM33 | CM34 | CM34 | CM34 |
| C34:M1-3M | CM34:1-3M | CM34:M1-3 | CM34:M1-3 | CM34:M1-3 | CM35M:1-3 | CM35M:1-3 | CM35M:1-3 |
| C34:Y1-3M | CM34:1-3Y | CM34:Y1-3 | CM34:Y1-3 | CM34:Y1-3 | CM35Y:1-3 | CM35Y:1-3 | CM35Y:1-3 |
| C35:A1-3M | CM35:A1-3 | CM35:A1-3 | CM35:A1-3 | CM35:A1-3 | CM36A:1-3 | CM36A:1-3 | CM36A:1-3 |
| C35:B1-3M | CM35:B1-3 | CM35:B1-3 | CM35:B1-3 | CM35:B1-3 | CM36B:1-3 | CM36B:1-3 | CM36B:1-3 |
| C35:C1-3M | CM35:C1-3 | CM35:C1-3 | CM35:C1-3 | CM35:C1-3 | CM36C:1-3 | CM36C:1-3 | CM36C:1-3 |
| C35:D1-3M | CM35:D1-3 | CM35:D1-3 | CM35:D1-3 | CM35:D1-3 | CM36D:1-3 | CM36D:1-3 | CM36D:1-3 |
| | CM35:J1-3 | | | | | | |
| | CM35:E1-3 | CM35:E1-3 | CM35:E1-3 | CM35:E1-3 | CM36E:1-3 | CM36E:1-3 | CM36E:1-3 |
| C35:E1-3M | CM35:F1-3 | CM35:F1-3 | CM35:F1-3 | CM35:F1-3 | CM36F:1-3 | CM36F:1-3 | CM36F:1-3 |
| C35:F1-3M | CM35:G1-3 | CM35:G1-3 | CM35:G1-3 | CM35:G1-3 | CM36G:1-3 | CM36G:1-3 | CM36G:1-3 |
| C35:G1-3M | CM35:H1-3 | CM35:H1-3 | CM35:H1-3 | CM35:H1-3 | CM36H:1-3 | CM36H:1-3 | CM36H:1-3 |
| C35:H1-3M | CM35:I1-3 | CM35:I1-3 | CM35:I1-3 | CM35:I1-3 | CM36I:1-3 | CM36I:1-3 | CM36I:1-3 |
| | CM35:K1-3 | | | | | | |
| C36:1-3M | CM36:1-3 | CM36:1-3 | CM36:1-3 | CM36:1-3 | CM37:1-3 | CM37:1-3 | CM37:1-3 |
| C37:1-3M | CM37:1-3 | CM37:1-3 | CM37:1-3 | CM37:1-3 | CM38:1-3 | CM38:1-3 | CM38:1-3 |
| C38:1-3M | CM38:1-3 | CM38:1-3 | CM38:1-3 | CM38:1-3 | CM39:1-3 | CM39:1-3 | CM39:1-3 |
| C39:2-3M | CM39:2-3 | CM39:2-3 | CM39:2-3 | CM39:2-3 | CM40:2-3 | CM40:2-3 | CM40:2-3 |
| C40:2-3M | CM40:2-3 | CM40:2-3 | CM40:2-3 | CM40:2-3 | CM41:2-3 | CM41:2-3 | CM41:2-3 |
| | | | | | CM42 | CM42 | CM42 |
| C41:1-3M | CM41:1-3 | CM41:1-3 | | | | | |
| | | CM42:1-3 | | | | | |
| C42:1-3M | CM42:1-3 | CM42A:1-3 | | | | | |
| C43:1-3M | CM43:1-3 | CM43:1-3 | | | | | |
| C43:A1-3M | CM43A:1-3 | CM43A:1-3 | | | | | |
| | | CM44:1-3 | | | | | |
| | | CM44A:1-3 | | | | | |
| | | CM44B:1-3 | | | | | |
| | | CM44C:1-3 | | | | | |
| C44M | CM44 | CM45 | CM41 | CM41 | CM43 | CM43 | CM43 |
| C45M | CM45 | CM45A | CM42 | CM42 | CM44 | CM44 | CM44 |
| C46M | CM46 | CM46 | CM43 | CM43 | CM45 | CM45 | CM45 |
| C47M | CM47 | CM47 | CM44 | CM44 | CM46 | CM46 | CM46 |
| C48:MM | CM48M | CM48:M | CM45:M | CM45:M | CM47:M | CM47:M | CM47:M |
| C48:YM | CM48Y | CM48:Y | CM45:Y | CM45:Y | CM47:YR | CM47:YR | CM47:YR |
| | | | CM46 | CM46 | CM49 | CM49 | CM49 |
| C49M | CM49 | CM49:A | CM47 | CM47 | CM48 | CM48 | CM48 |
| C50M | CM50 | CM50 | CM48 | CM48 | CM50 | CM50 | CM50 |
| C51M | CM51 | CM51 | CM49 | CM49 | CM51 | CM51 | CM51 |
| C52M | CM52 | CM52 | CM50 | CM50 | CM52 | CM52 | CM52 |
| | CM52A | CM52A | CM51 | CM51 | CM53 | CM53 | CM53 |
| | CM52B | CM52B | CM52 | CM52 | CM54 | CM54 | CM54 |
| | | | CM52A | CM52A | CM55 | CM55 | CM55 |
| C53M | CM53 | CM53 | CM53 | CM53 | CM56 | CM56 | CM56 |
| C54M | CM54 | CM54 | CM54 | CM54 | CM57 | CM57 | CM57 |
| | | | | | CM58 | CM58 | CM58 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | | | CM59 | CM59 | CM59 |
| | | | | | CM60 | CM60 | CM60 |
| | | | | | CM61 | CM61 | CM61 |
| | CM55 | CM55 | CM55 | CM55 | CM62 | CM62 | CM62 |
| C55M | CM55A | CM55A | CM56 | CM56 | CM63 | CM63 | CM63 |
| C56M | CM56 | CM56 | CM57 | CM57 | CM64 | CM64 | CM64 |
| C56AM | | | | | | | |
| | CM57 | | | | | | |
| | CM57A | | | | | | |
| | CM57C:1-3 | CM57:1-3 | CM58:1-3 | CM58:1-3 | | | |
| C57:1-3M | CM57D:1-3 | CM57A:1-3 | CM59:1-3 | CM59:1-3 | CM66:1-3 | CM66:1-3 | CM66:1-3 |
| C61:1-3M | CM58:1-3 | CM58:1-3 | CM60:1-3 | CM60:1-3 | CM67:1-3 | CM67:1-3 | CM67:1-3 |
| C58:1-3M | CM59:1-3 | CM59:1-3 | CM61:1-3 | CM61:1-3 | CM68:1-3 | CM68:1-3 | CM68:1-3 |
| C59:1-3M | CM60:1-3 | CM60:1-3 | CM62:1-3 | CM62:1-3 | CM69:1-3 | CM69:1-3 | CM69:1-3 |
| C60:M1-3M | CM61:1-3M | CM61:M1-3 | CM63:M1-3 | CM63:M1-3 | CM70M:1-3 | CM70M:1-3 | CM70M:1-3 |
| C60:Y1-3M | CM61:1-3Y | CM61:Y1-3 | CM63:Y1-3 | CM63:Y1-3 | CM70Y:1-3 | CM70Y:1-3 | CM70Y:1-3 |
| C62:1-3M | CM62:1-3 | CM62:1-3 | CM64:1-3 | CM64:1-3 | CM71:1-3 | CM71:1-3 | CM71:1-3 |
| C63:1-3M | CM63:1-3 | CM63:1-3 | CM65:1-3 | CM65:1-3 | CM72:1-3 | CM72:1-3 C | M72:1-3 |
| C64:M1-3M | CM64:1-3M | CM64:M1-3 | CM66:M1-3 | CM66:M1-3 | CM73M:1-3 | CM73M:1-3 | CM73M:1-3 |
| C64:Y1-3M | CM64:1-3Y | CM64:Y1-3 | CM66:Y1-3 | CM66:Y1-3 | CM73Y:1-3 | CM73Y:1-3 | CM73Y:1-3 |
| C65:1-3M | CM65:1-3 | CM65:1-3 | CM67:1-3 | CM67:1-3 | CM74:1-3 | CM74:1-3 | CM74:1-3 |
| C66:1-3M | CM66:1-3 | CM66:1-3 | CM68:1-3 | CM68:1-3 | CM75:1-3 | CM75:1-3 | CM75:1-3 |
| C67:M1-3M | CM67:1-3M | CM67:M1-3 | CM69:M1-3 | CM69:M1-3 | CM76M:1-3 | CM76M:1-3 | CM76M:1-3 |
| C67:Y1-3M | CM67:1-3Y | CM67:Y1-3 | CM69:Y1-3 | CM69:Y1-3 | CM76Y:1-3 | CM76Y:1-3 | CM76Y:1-3 |
| C68:A1-3M | CM68:1-3A | CM68:A1-3 | CM70:A1-3 | CM70:A1-3 | CM77A:1-3 | CM77A:1-3 | CM77A:1-3 |
| C68:B1-3M | CM68:1-3B | CM68:B1-3 | CM70:B1-3 | CM70:B1-3 | CM77B:1-3 | CM77B:1-3 | CM77B:1-3 |
| C69:1-3M | CM69:1-3 | CM69:1-3 | CM71:1-3 | CM71:1-3 | CM78:1-3 | CM78:1-3 | CM78:1-3 |
| | CM69A:1-3 | CM69A:1-3 | CM72:1-3 | CM72:1-3 | CM79:1-3 | CM79:1-3 | CM79:1-3 |
| | CM69B:1-3M | CM69B:M1-3 | | | | | |
| | CM69B:1-3Y | CM69B:Y1-3 | | | | | |
| | CM69C:1-3 | CM69C:1-3 | CM73:1-3 | CM73:1-3 | CM80:1-3 | CM80:1-3 | CM80:1-3 |
| C70:A1-3M | CM70:1-3A | CM70A:1-3 | CM74A:1-3 | CM74A:1-3 | CM81A:1-3 | CM81A:1-3 | CM81A:1-3 |
| | CM70:1-3B | CM70B:1-3 | CM74B:1-3 | CM74B:1-3 | CM81B:1-3 | CM81B:1-3 | CM81B:1-3 |
| C70:B1-3M | { CM70:1-3C | CM70C:1-3 | CM74C:1-3 | CM74C:1-3 | CM81C:1-3 | CM81C:1-3 | CM81C:1-3 |
| | { CM70:1-3D | CM70D:1-3 | CM74D:1-3 | CM74D:1-3 | CM81D:1-3 | CM81D:1-3 | CM81D:1-3 |
| C71:A1-3M | CM71:A1-3 | CM71A:1-3 | CM75A:1-3 | CM75A:1-3 | CM82A:1-3 | CM82A:1-3 | CM82A:1-3 |
| C71:B1-3M | CM71:B1-3 | CM71B:1-3 | CM75B:1-3 | CM75B:1-3 | | | |
| | CM71:C1-3 | CM71C:1-3 | CM75C:1-3 | CM75C:1-3 | | | |
| | CM71:D1-3 | CM71D:1-3 | CM75D:1-3 | CM75D:1-3 | | | |
| | CM71:E1-3 | CM71E:1-3 | CM75E:1-3 | CM75E:1-3 | | | |
| C71:M1-3M | CM71:F1-3 | CM71F:M1-3 | CM75F:M1-3 | CM75F:M1-3 | CM82B:M1-3 | CM82B:M1-3 | CM82B:M1-3 |
| C71:D1-3M | CM71:G1-3 | CM71F:D1-3 | CM75F:D1-3 | CM75F:D1-3 | CM82B:D1-3 | CM82B:D1-3 | CM82B:D1-3 |
| C71:Y1-3M | CM71:H1-3 | CM71F:Y1-3 | CM75F:Y1-3 | CM75F:Y1-3 | CM82B:Y1-3 | CM82B:Y1-3 | CM82B:Y1-3 |
| C73:A1-3M | CM72:1-3A | CM72:A1-3 | CM76:A1-3 | CM76:A1-3 | CM83A:1-3 | CM83A:1-3 | CM83A:1-3 |
| C73:B1-3M | CM72:1-3B | CM72:B1-3 | CM76:B1-3 | CM76:B1-3 | CM83B:1-3 | CM83B:1-3 | CM83B:1-3 |
| C72:1-3M | CM73:1-3 | CM73:1-3 | CM77:1-3 | CM77:1-3 | CM84:1-3 | CM84:1-3 | CM84:1-3 |
| C74:1-3M | CM74:1-3 | CM74:1-3 | CM78:1-3 | CM78:1-3 | CM85:1-3 | CM85:1-3 | CM85:1-3 |
| C75:1-3M | CM75:1-3 | CM75:1-3 | CM79:1-3 | CM79:1-3 | CM86:1-3 | CM86:1-3 | CM86:1-3 |
| C76:1-3M | CM76:1-3 | CM76:1-3 | CM80:1-3 | CM80:1-3 | CM87:1-3 | CM87:1-3 | CM87:1-3 |
| C77:1-3M | CM77:1-3 | CM77:1-3 | CM81:1-3 | CM81:1-3 | CM88:1-3 | CM88:1-3 | CM88:1-3 |
| C78M | CM78 | CM78 | CM82 | CM82 | | | |
| C79M | CM79 | CM79 | CM83 | CM83 | | | |
| C80M | CM80 | CM80 | CM84 | CM84 | CM89 | CM89 | CM89 |
| | CM81:1-2 | CM81:1-2 | CM85:1-2 | CM85:1-2 | | | |
| C81:1-2M | CM81A:1-2 | CM81A:1-2 | CM86:1-2 | CM86:1-2 | CM91:1-2 | CM91:1-2 C | M91:1-2 |
| C82:M1-2M | CM82:1-2M | CM82:M1-2 | CM87:M1-2 | CM87:M1-2 | CM92M:1-2 | CM92M:1-2 | CM92M:1-2 |
| C82:Y1-2M | CM82:1-2Y | CM82:Y1-2 | CM87:Y1-2 | CM87:Y1-2 | CM92Y:1-2 | CM92Y:1-2 | CM92Y:1-2 |
| C83:A1-2M | CM83:1-2A | CM83A:1-2 | CM88A:1-2 | CM88A:1-2 | CM93A:1-2 | CM93A:1-2 | CM93A:1-2 |
| | CM83:1-2B | CM83B:1-2 | CM88B:1-2 | CM88B:1-2 | CM93B:1-2 | CM93B:1-2 | CM93B:1-2 |
| C83:B1-2M | CM83:1-2C | CM83C:1-2 | CM88C:1-2 | CM88C:1-2 | CM93C:1-2 | CM93C:1-2 | CM93C:1-2 |
| | CM83:1-2D | CM83D:1-2 | CM88D:1-2 | CM88D:1-2 | CM93D:1-2 | CM93D:1-2 | CM93D:1-2 |
| | CM84:1-2 | CM84:1-2 | CM89:1-2 | CM89:1-2 | CM94:1-2 | CM94:1-2 | CM94:1-2 |
| | CM84A:1-2 | CM84A:1-2 | CM90:1-2 | CM90:1-2 | CM95:1-2 | CM95:1-2 | CM95:1-2 |
| C84:1-2M | CM84B:1-2 | CM84B:1-2 | CM91:1-2 | CM91:1-2 | CM96:1-2 | CM96:1-2 | CM96:1-2 |
| C85:1-2M | CM85:1-2 | CM85:1-2 | CM92:1-2 | CM92:1-2 | CM97:1-2 | CM97:1-2 | CM97:1-2 |
| C86M | CM86A | CM86 | CM93 | CM93 | CM98 | CM98 | CM98 |
| C87:2-3M | CM87:2-3 | { CM87:A2-3 } | CM94:2-3 | CM94:2-3 | CM99:2-3 | CM99:2-3 | CM99:2-3 |
| | | { CM87:B2-3 } | | | | | |
| C88:1-3M | CM88:1-3A | CM88:A1-3 | CM95:A1-3 | CM95:A1-3 | CM100A:1-3 | CM100A:1-3 | CM100A:1-3 |

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|---|---|---|---|---|---|---|---|
| | CM88:1-3B | CM88:B1-3 | CM95:B1-3 | CM95:B1-3 | CM100B:1-3 | CM100B:1-3 | CM100B:1-3 |
| | CM88:1-3C | CM88:C1-3 | | | | | |
| C89:1-3M | CM89:1-3 | CM89:1-3 | CM96:1-3 | CM96:1-3 | CM101:1-3 | CM101:1-3 | CM101:1-3 |
| C90:1-2M | CM90:1-2 | CM90:A1-2 | CM97:1-2 | CM97:1-2 | CM102:1-2 | CM102:1-2 | CM102:1-2 |
| | | CM90:B1-3 | | | | | |
| C90:A3M | CM90:3A | CM90:A3 | CM97:3 | CM97:3 | CM102A:3 | CM102A:3 | CM102A:3 |
| C90:B3M | | CM90:B3 | | | | | |
| | CM90:3B | CM90:C3 | C97:C3 | CM97:C3 | CM102C:3 | CM102C:3 | CM102C:3 |
| | CM91:A1-3 | CM91:A1-3 | CM98:A1-3 | CM98:A1-3 | CM103A:1-3 | CM103A:1-3 | CM103A:1-3 |
| | CM91:B1-3 | | CM98S:B1-3 | CM98S:B1-3 | CM103BA1-3 | CM103BA1-3 | CM103BA1-3 |
| | CM91:D1-3 | CM91:B1-3 | CM98R:B1-3 | CM98R:B1-3 | CM103BB1-3 | CM103BB1-3 | CM103BB1-3 |
| | CM91:E1-3 | | CM98O:B1-3 | CM98O:B1-3 | CM103BC1-3 | CM103BC1-3 | CM103BC1-3 |
| | CM91:C1-3 | CM91:C1-3 | CM98:C1-3 | CM98:C1-3 | CM103C:1-3 | CM103C:1-3 | CM103C:1-3 |
| C91:1-2M | CM91A:1-2 | CM92:1-2 | CM99:1-2 | CM99:1-2 | CM104:1-2 | CM104:1-2 | CM104:1-2 |
| C91:A3M | CM91A:3A | CM92:A3 | CM99:A3 | CM99:A3 | CM104A:3 | CM104A:3 | CM104A:3 |
| C91:B3M | CM91A:3B | CM92:B3 | CM99:B3 | CM99:B3 | CM104B:3 | CM104B:3 | CM104:B3 |
| | CM91A:3C | CM92:C3 | CM99:C3 | CM99:C3 | CM104C:3 | CM104C:3 | CM104C:3 |
| C92:1-2M | CM92:1-2 | CM92A:1-2 | CM100:1-2 | CM100:1-2 | | | |
| C92:A3M | CM92:3A | CM92A:A3 | CM100:A3 | CM100:A3 | | | |
| C92:B3M | CM92:3B | CM92A:B3 | CM100:B3 | CM100:B3 | | | |
| | CM92:3C | CM92A:C3 | CM100:C3 | CM100:C3 | | | |
| C93:1-2M | CM93:1-2 | CM93:1-2 | CM101:1-2 | CM101:1-2 | CM105:1-2 | CM105:1-2 | CM105:1-2 |
| C93:A3M | CM93:3A | CM93:A3 | CM101:A3 | CM101:A3 | CM105A:3 | CM105A:3 | CM105A:3 |
| C93:B3M | CM93:3B | CM93:B3 | CM101:B3 | CM101:B3 | CM105B:3 | CM105B:3 | CM105B:3 |
| | | | CM101X | CM101X | CM105A | CM105A | CM105A |
| C104:1M | CM104:1 | CM94:1 | CM102:1 | CM102:1 | CM106:1 | CM106:1 | CM106:1 |
| C109:A1M | CM109:1A | CM99:A1 | CM103:A1 | CM103:A1 | CM107A:1 | CM107A:1 | CM107A:1 |
| C109:B1M | CM109:1B | CM99:B1 | CM103:B1 | CM103:B1 | CM107B:1 | CM107B:1 | CM107B:1 |
| C109:C1M | CM109:1C | CM99:C1 | CM103:C1 | CM103:C1 | CM107C:1 | CM107C:1 | CM107C:1 |
| C109:D1M | CM109:1D | CM99:D1 | CM103:D1 | CM103:D1 | CM107D:1 | CM107D:1 | CM107D:1 |
| C106AB1M | CM106:1 | CM96:1 | CM104:1 | CM104:1 | CM108:1 | CM108:1 | CM108:1 |
| C107:A1M | CM108:1A | CM98:A1 | CM105:A1 | CM105:A1 | CM109A:1 | CM109A:1 | CM109A:1 |
| C107:B1M | CM108:1B | CM98:B1 | CM105:B1 | CM105:B1 | CM109B:1 | CM109B:1 | CM109B:1 |
| C107:C1M | CM108:1C | CM98:C1 | CM105:C1 | CM105:C1 | CM109C:1 | CM109C:1 | CM109C:1 |
| | CM108:1D | CM98:D1 | CM105:D1 | CM105:D1 | CM109D:1 | CM109D:1 | CM109D:1 |
| | CM108:1E | CM98:E1 | CM105:E1 | CM105:E1 | CM109E:1 | CM109E:1 | CM109E:1 |
| C108:1M | | | | | | | |
| C104:2M | CM104:2 | CM94:2 | CM102:2 | CM102:2 | CM106:2 | CM106:2 | CM106:2 |
| C109:A2M | CM109:2A | CM99:A2 | CM103:A2 | CM103:A2 | CM107A:2 | CM107A:2 | CM107A:2 |
| C109:B2M | CM109:2B | CM99:B2 | CM103:B2 | CM103:B2 | CM107B:2 | CM107B:2 | CM107B:2 |
| C109:C2M | CM109:2C | CM99:C2 | CM103:C2 | CM103:C2 | CM107C:2 | CM107C:2 | CM107C:2 |
| C109:D2M | CM109:2D | CM99:D2 | CM103:D2 | CM103:D2 | CM107D:2 | CM107D:2 | CM107D:2 |
| C106AB2M | CM106:2 | CM96:2 | CM104:2 | CM104:2 | CM108:2 | CM108:2 | CM108:2 |
| C107:A2M | CM108:2A | CM98:A2 | CM105:A2 | CM105:A2 | CM109A:2 | CM109A:2 | CM109A:2 |
| C107:B2M | CM108:2B | CM98:B2 | CM105:B2 | CM105:B2 | CM109B:2 | CM109B:2 | CM109B:2 |
| C107:C2M | CM108:2C | CM98:C2 | CM105:C2 | CM105:C2 | CM109C:2 | CM109C:2 | CM109C:2 |
| | CM108:2D | CM98:D2 | CM105:D2 | CM105:D2 | CM109D:2 | CM109D:2 | CM109D:2 |
| | CM108:2E | CM98:E2 | CM105:E2 | CM105:E2 | CM109E:2 | CM109E:2 | CM109E:2 |
| C108:2M | | | | | | | |
| C107:A3M | | | | | | | |
| C107:B3M | | | | | | | |
| C107:C3M | | | | | | | |
| C108:3M | | | | | | | |
| C104:4M | CM104:3 | CM94:3 | CM102:3 | CM102:3 | CM106:3 | CM106:3 | CM106:3 |
| | | | CM103:A3 | CM103:A3 | | | |
| | | | CM103:B3 | CM103:B3 | | | |
| | | | CM103:C3 | CM103:C3 | | | |
| | | | CM103:D3 | CM103:D3 | | | |
| C106AB4M | CM106:3 | CM96:3 | CM104:3 | CM104:3 | CM108:3 | CM108:3 | CM108:3 |
| C107:A4M | CM108:3A | CM98:A3 | CM105:A3 | CM105:A3 | CM109A:3 | CM109A:3 | CM109A:3 |
| C107:B4M | CM108:3B | CM98:B3 | CM105:B3 | CM105:B3 | CM109B:3 | CM109B:3 | CM109B:3 |
| C107:C4M | CM108:3C | CM98:C3 | CM105:C3 | CM105:C3 | CM109C:3 | CM109C:3 | CM109C:3 |
| | CM108:3D | CM98:D3 | CM105:D3 | CM105:D3 | CM109D:3 | CM109D:3 | CM109D:3 |
| | CM108:3E | CM98:E3 | CM105:E3 | CM105:E3 | CM109E:3 | CM109E:3 | CM109E:3 |
| C108:4M | | | | | | | |
| | CM104:4A | CM94:4A | CM102:OF | CM102:OF | | | |
| C104:5M | CM104:4B | CM94:4B | CM102:4 | CM102:4 | CM106:4 | CM106:4 | CM106:4 |
| C109:A5M | CM109:4A | CM99:A4 | CM103:A4 | CM103:A4 | CM107A:4 | CM107A:4 | CM107A:4 |
| C109:B5M | CM109:4B | CM99:B4 | CM103:B4 | CM103:B4 | CM107B:4 | CM107B:4 | CM107B:4 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C109:C5M | CM109:4C | CM99:C4 | CM103:C4 | CM103:C4 | CM107C:4 | CM107C:4 | CM107C:4 |
| C109:D5M | CM109:4D | CM99:D4 | CM103:D4 | CM103:D4 | CM107D:4 | CM107D:4 | CM107D:4 |
| C106AB5M | CM106:4 | CM96:4 | CM104:4 | CM104:4 | CM108:4 | CM108:4 | CM108:4 |
| C107:A5M | CM108:4A | CM98:A4 | CM105:A4 | CM105:A4 | CM109A:4 | CM109A:4 | CM109A:4 |
| C107:B5M | CM108:4B | CM98:B4 | CM105:B4 | CM105:B4 | CM109B:4 | CM109B:4 | CM109B:4 |
| C107:C5M | CM108:4C | CM98:C4 | CM105:C4 | CM105:C4 | CM109C:4 | CM109C:4 | CM109C:4 |
| | CM108:4D | CM98:D4 | CM105:D4 | CM105:D4 | CM109D:4 | CM109D:4 | CM109D:4 |
| | CM108:4E | CM98:E4 | CM105:E4 | CM105:E4 | CM109E:4 | CM109E:4 | CM109E:4 |
| C108:5M | | | | | | | |
| C104:6M | CM104:5 | CM94:5 | CM102:5 | CM102:5 | CM106:6 | CM106:6 | CM106:6 |
| C106AB6M | CM106:5 | CM96:5 | CM104:5 | CM104:5 | CM108:6 | CM108:6 | CM108:6 |
| C107:A6M | CM108:5A | CM98:A5 | CM105:A5 | CM105:A5 | CM109A:6 | CM109A:6 | CM109A:6 |
| C107:B6M | CM108:5B | CM98:B5 | CM105:B5 | CM105:B5 | CM109B:6 | CM109B:6 | CM109B:6 |
| C107:C6M | CM108:5C | CM98:C5 | CM105:C5 | CM105:C5 | CM109C:6 | CM109C:6 | CM109C:6 |
| | CM108:5D | CM98:D5 | CM105:D5 | CM105:D5 | CM109D:6 | CM109D:6 | CM109D:6 |
| | CM108:5E | CM98:E5 | CM105:E5 | CM105:E5 | CM109E:6 | CM109E:6 | CM109E:6 |
| | CM108:5F | CM98:F5 | CM105:F5 | CM105:F5 | CM109F:6 | CM109F:6 | CM109F:6 |
| C108:6M | | | | | | | |
| C104:7M | CM104:6 | CM94:6 | CM102:6 | CM102:6 | CM106:5 | CM106:5 | CM106:5 |
| C106AB7M | CM106:6 | CM96:6 | CM104:6 | CM104:6 | CM108:5 | CM108:5 | CM108:5 |
| C107:A7M* | CM108:6A | CM98:A6 | CM105:A6 | CM105:A6 | CM109A:5 | CM109A:5 | CM109A:5 |
| | CM108:6D | CM98:D6 | CM105:D6 | CM105:D6 | CM109D:5 | CM109D:5 | CM109D:5 |
| | CM108:6E | CM98:E6 | CM105:E6 | CM105:E6 | CM109E:5 | CM109E:5 | CM109E:5 |
| C107:A7M* | CM108:6F | CM98:F6 | CM105:F6 | CM105:F6 | CM109F:5 | CM109F:5 | CM109F:5 |
| C108:7M | | | | | | | |
| C107:A8M | | | | | | | |
| C107:B8M | | | | | | | |
| C107:C8M | | | | | | | |
| C108:8M | | | | | | | |
| C104:9M | CM104:7 | CM94:7 | CM102:7 | CM102:7 | CM106:7 | CM106:7 | CM106:7 |
| C106AB9M | CM106:7 | CM96:7 | CM104:7 | CM104:7 | CM108:7 | CM108:7 | CM108:7 |
| C107:A9M* | CM108:7A | CM98:A7 | CM105:A7 | CM105:A7 | CM109A:7 | CM109A:7 | CM109A:7 |
| | CM108:7D | CM98:D7 | CM105:D7 | CM105:D7 | CM109D:7 | CM109D:7 | CM109D:7 |
| | CM108:7E | CM98:E7 | CM105:E7 | CM105:E7 | CM109E:7 | CM109E:7 | CM109E:7 |
| C107:A9M* | CM108:7F | CM98:F7 | CM105:F7 | CM105:F7 | CM109F:7 | CM109F:7 | CM109F:7 |
| C108:9M | | | | | | | |
| | CM109AA1-5 | CM99A:A1-5 | CM106:A1-3 | CM106:A1-3 | CM110A:1-2 | CM110A:1-2 | CM110A:1-2 |
| | CM109AB1-5 | CM99A:B1-5 | CM106:B1-3 | CM106:B1-3 | CM110B:1-2 | CM110B:1-2 | CM110B:1-2 |
| | CM109AC1-5 | CM99A:C1-5 | CM106:C1-3 | CM106:C1-3 | CM110C:1-2 | CM110C:1-2 | CM110C:1-2 |
| | CM109AD1-5 | CM99A:D1-5 | CM106:D1-3 | CM106:D1-3 | CM110D:1-2 | CM110D:1-2 | CM110D:1-2 |
| | CM109AE1-5 | CM99A:E1-5 | CM106:E1-3 | CM106:E1-3 | CM110E:1-2 | CM110E:1-2 | CM110F:1-2 |
| | CM109AF1-5 | CM99A:F1-5 | CM106:F1-3 | CM106:F1-3 | CM110F:1-2 | CM110F:1-2 | CM110E:1-2 |
| | CM109AG1-5 | CM99A:G1-5 | CM106:G1-3 | CM106:G1-3 | CM110G:1-2 | CM110G:1-2 | CM110G:1-2 |
| | CM109BA1-5 | CM99B:A1-5 | CM107:A1-3 | CM107:A1-3 | CM111A:1-2 | CM111A:1-2 | CM111A:1-2 |
| | CM109BB1-5 | CM99B:B1-5 | CM107:B1-3 | CM107:B1-3 | CM111B:1-2 | CM111B:1-2 | CM111B:1-2 |
| | CM109BC1-5 | CM99B:C1-5 | CM107:C1-3 | CM107:C1-3 | CM111C:1-2 | CM111C:1-2 | CM111C:1-2 |
| | CM109BD1-5 | CM99B:D1-5 | CM107:D1-3 | CM107:D1-3 | CM111D:1-2 | CM111D:1-2 | CM111D:1-2 |
| C110:AM | CM110:1 | CM100:A | | | | | |
| C110:BM | CM110:2 | CM100:C | | | | | |
| C110:CM | CM110:3 | CM100:B | | | | | |
| C110:DM | CM110:4 | CM100:D | | | | | |
| C110:EM | CM110:5 | CM100:E | | | | | |
| C110:FM | | | | | | | |
| C110:GM | CM110:6 | CM100:F | | | | | |
| C110:HM | CM110:7 | CM100:G | | | | | |
| C110:IM | CM110:8 | CM100:H | | | | | |
| C110:JM | CM110:9 | CM100:I | | | | | |
| C110:KM | CM110:10 | CM100:J | | | | | |
| | | CM100:K | | | | | |
| | | CM100:L | | | | | |
| C110:LM | CM110:11 | CM100:M | | | | | |
| C110:MM | CM110:12 | CM100:N | | | | | |
| C110:NM | CM110:13 | CM100:O | | | | | |
| C110:OM | CM110:14 | CM100:P | | | | | |
| C110:PM | CM110:15 | CM100:Q | | | | | |
| C110:QM | CM110:16 | CM100:R | | | | | |

*This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C111M | CM111 | CM101 | CM109 | CM109 | CM113 | CM113 | CM113 |
| C112:A-OM | CM112:1-15 | CM102:A-O | | | | | |
| C113M | CM113 | CM103 | CM111 | CM111 | CM115 | CM115 | CM115 |
| C114:1-14M | CM114:1-12 | CM104:1-12 | CM112:1-12 | CM112:1-12 | CM116:1-12 | CM116:1-12 | CM116:1-12 |
| | CM115:1-12 | CM105:1-12 | CM113:1-12 | CM113:1-12 | CM117:1-12 | CM117:1-12 | CM117:1-12 |
| | CM115A1-12 | CM106:2-12 | CM113A2-12 | CM113A1-12 | | | |
| | CM115B2-12 | CM107:2-12 | CM113B2-12 | CM113B2-12 | | | |
| | CM115C2-12 | | | | | | |
| | CM115D2-12 | | | | | | |
| C115:1-14M | CM115E1-12 | CM108:1-12 | CM114:1-12 | CM114:1-12 | CM118:1-12 | CM118:1-12 | CM118:1-12 |
| C116:1-14M | CM116:1-12 | CM109:1-12 | CM115:1-12 | CM115:1-12 | CM119:1-12 | CM119:1-12 | CM119:1-12 |
| | | | CM116:1-12 | CM116:1-12 | CM120:1-12 | CM120:1-12 | CM120:1-12 |
| | | | CM117:1-12 | CM117:1-12 | CM121:1-12 | CM121:1-12 | CM121:1-12 |
| | | | CM118:1-12 | CM118:1-12 | CM122:1-12 | CM122:1-12 | CM122:1-12 |
| | | | CM119:1-12 | CM119:1-12 | | | |
| | | | CM120A1-12 | CM120A1-12 | CM123A1-12 | CM123A1-12 | CM123A1-12 |
| | | | CM120B1-12 | CM120B1-12 | CM123B1-12 | CM123B1-12 | CM123B1-12 |
| | | | CM120C1-12 | CM120C1-12 | CM123C1-12 | CM123C1-12 | CM123C1-12 |
| | | | CM120D1-12 | CM120D1-12 | CM123D1-12 | CM123D1-12 | CM123D1-12 |
| | | | CM120E1-12 | CM120E1-12 | CM123E1-12 | CM123E1-12 | CM123E1-12 |
| | | | CM120F1-12 | CM120F1-12 | CM123F1-12 | CM123F1-12 | CM123F1-12 |
| | | | CM120G1-12 | CM120G1-12 | CM123G1-12 | CM123G1-12 | CM123G1-12 |
| | | | CM120H1-12 | CM120H1-12 | CM123H1-12 | CM123H1-12 | CM123H1-12 |
| | | | CM120I1-12 | CM120I1-12 | CM123I1-12 | CM123I1-12 | CM123I1-12 |
| C117:1-14M | CM117:1-12 | CM110:1-12 | CM121:1-12 | CM121:1-12 | CM124:1-12 | CM124:1-12 | CM124:1-12 |
| C118M | CM118 | CM111 | CM122 | CM122 | CM125 | CM125 | CM125 |
| C119M | CM119 | CM112 | CM123 | CM123 | CM126 | CM126 | CM126 |
| C120M | CM120 | CM113 | CM124 | CM124 | CM127 | CM127 | CM127 |
| C121M | CM121 | CM114 | CM125 | CM125 | CM128 | CM128 | CM128 |
| C122M | | | | | | | |
| C123M | CM122 | CM115 | CM126 | CM126 | CM129 | CM129 | CM129 |
| C124M | CM123 | CM116 | CM127 | CM127 | CM130 | CM130 | CM130 |
| C125M | CM124 | CM117 | CM128 | CM128 | | | |
| C126M | CM125 | CM118 | CM129 | CM129 | | | |
| C127M | CM126 | CM119 | CM130 | CM130 | CM131 | CM131 | CM131 |
| C128:AM | CM127:1 | CM120:A | CM131A | CM131A | | | |
| C128:BM | CM127:2 | CM120:B | CM131B | CM131B | CM132:A | CM132:A | CM132:A |
| C128:CM | CM127:3 | CM120:C | CM131C | CM131C | CM132:B | CM132:B | CM132:B |
| C128:DM | CM127:4 | CM120:D | CM131D | CM131D | CM132:C | CM132:C | CM132:C |
| C128:EM | CM127:5 | CM120:E | CM131E | CM131E | CM132:D | CM132:D | CM132:D |
| C128:FM | CM127:6 | CM120:F | CM131F | CM131F | CM132:E | CM132:E | CM132:E |
| C128:GM | CM127:7 | CM120:G | CM131G | CM131G | CM132:F | CM132:F | CM132:F |
| C128:HM | CM127:8 | CM120:H | CM131H | CM131H | CM132:G | CM132:G | CM132:G |
| C128:IM | CM127:9 | CM120:I | CM131I | CM131I | CM132:H | CM132:H | CM132:H |
| C128:JM | CM127:10 | CM120:J | CM131J | CM131J | CM132:I | CM132:I | CM132:I |
| C128:KM | CM127:11 | CM120:K | CM131K | CM131K | CM132:J | CM132:J | CM132:J |
| C128:LM | CM127:12 | CM120:L | CM131L | CM131L | CM132:K | CM132:K | CM132:K |
| C128:MM | CM127:13 | CM120:M | CM131M | CM131M | CM132:L | CM132:L | CM132:L |
| C128:NM | CM127:14 | CM120:N | CM131N | CM131N | CM132:M | CM132:M | CM132:M |
| C128:OM | CM127:15 | CM120:O | CM131O | CM131O | CM132:N | CM132:N | CM132:N |
| | CM127:16 | | | | | | |
| C129:AM | CM128:1 | CM121:A | CM132A | CM132A | | | |
| C129:BM | CM128:2 | CM121:B | CM132B | CM132B | | | |
| C129:CM | CM128:3 | CM121:C | CM132C | CM132C | | | |
| | CM128:4 | CM121:D | CM132D | CM132D | | | |
| C130M | CM129 | CM122 | CM133 | CM133 | | | |
| | | | CM134 | CM134 | CM133 | CM133 | CM133 |
| C94M | CM94 | CM123 | CM135 | CM135 | CM134 | CM134 | CM134 |
| C95M | CM95 | CM124 | CM136 | CM136 | CM135 | CM135 | CM135 |
| C96:A1-3M | CM96:1-3A | CM125:A1-2<br>CM130:A | CM137:A1-3 | CM137:A1-3 | CM136A:1-3 | CM136A:1-3 | CM136A:1-3 |
| C96:B1-3M | CM96:1-3B | CM125:B1-2<br>CM130:B | CM137:B1-3 | CM137:B1-3 | CM136B:1-3 | CM136B:1-3 | CM136B:1-3 |
| C96:C1-3M | CM96:1-3C | CM125:C1-2<br>CM130:C | CM137:C1-3 | CM137:C1-3 | CM136C:1-3 | CM136C:1-3 | CM136C:1-3 |
| C96:D1-3M | CM96:1-3D | CM125:D1-2<br>CM130:D | CM137:D1-3 | CM137:D1-3 | CM136D:1-3 | CM136D:1-3 | CM136D:1-3 |
| C96:E1-3M | CM96:1-3E | CM125:E1-2<br>CM130:E | CM137:E1-3 | CM137:E1-3 | CM136E:1-3 | CM136E:1-3 | CM136E:1-3 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| C96:F1-3M | CM96:1-3F | CM125:F1-2<br>CM130:F | CM137:F1-3 | CM137:F1-3 | CM136F:1-3 | CM137F:1-3 | CM137F:1-3 |
| C96:G1-3M | CM96:1-3G | CM125:G1-2<br>CM130:G | CM137:G1-3 | CM137:G1-3 | CM136G:1-3 | CM136G:1-3 | CM136G:1-3 |
| | CM96:1-3H | | | | | | |
| C97:1-3M | CM97:1-3A<br>CM97:1-3B | CM126:1-2<br>CM131 | CM138:1-3 | CM138:1-3 | CM137:1-3 | CM137:1-3 | CM137:1-3 |
| | CM97:1-3C | | | | | | |
| C98:1-3M | CM98:1-3 | CM127:1-2<br>CM132 | CM139:1-3 | CM139:1-3 | CM138:1-3 | CM138:1-3 | CM138:1-3 |
| | CM98A:1-3 | | | | | | |
| | CM98B:A1-3 | | | | | | |
| | CM98B:B1-3 | | | | | | |
| | CM98B:C1-3 | | | | | | |
| | CM98B:D1-3 | | | | | | |
| C99:1-3M | CM99:1-3 | CM128:1-2<br>CM133 | CM140:1-3 | CM140:1-3 | CM139:1-3 | CM139:1-3 | CM139:1-3 |
| | CM100 | CM129 | | | | | |
| | CM100A | | | | | | |
| | | CM134 | CM141 | CM141 | CM140 | CM140 | CM140 |
| | | CM135 | CM142 | CM142 | CM141 | CM141 | CM141 |
| | | CM136 | CM143 | CM143 | | | |
| | | CM137:A-C | CM144:A-C | CM144:A-C | | | |
| C100M | CM100B | CM138 | | | | | |
| C101M | CM101 | | | | | | |
| C102M | CM102 | | | | | | |
| C103:AM | CM103:A | | | | | | |
| C103:BM | CM103:B | | | | | | |
| C103:CM | CM103:C | | | | | | |
| C103:DM | CM103:D | | | | | | |
| C103:EM | CM103:E | | | | | | |
| C103:FM | CM103:F | | | | | | |
| C103:GM | CM103:G | | | | | | |
| | CM103:H | | | | | | |
| C131M | CM130 | CM139 | CM145 | CM145 | CM142 | CM142 | CM142 |
| C132:1-5M | CM131:1-5 | CM140:1-5 | CM146:1-5 | CM146:1-5 | CM143:1-2 | CM143:1-2 | CM143:1-2 |
| C133:1-5M | CM132:1-5 | CM141:1-5 | CM147:1-5 | CM147:1-5 | CM144:1-2 | CM144:1-2 | CM144:1-2 |
| C134:1-4M | CM133:1-4 | CM142:1-4 | CM148:1-4 | CM148:1-4 | CM145:1 | CM145:1 | CM145:1 |
| C135M | CM134 | CM143 | CM149 | CM149 | | | |
| C136M | CM135 | CM144 | | | | | |
| C137M | CM136 | CM145 | CM150 | CM150 | | | |
| C138M | CM137 | CM146 | CM151 | CM151 | CM4 | CM4 | CM4 |
| C139M | CM138 | CM147 | CM152 | CM152 | | | |
| C140M | CM139 | CM148 | | | | | |
| C141M | CM140 | CM149 | | | | | |
| | | | CM153:HR | CM153:HR | CM146:HR | CM146:HR | CM146:HR |
| | | | CM153:MN | CM153:MN | CM146:MN | CM146:MN | CM146:MN |
| | | | CM153:AP | CM153:AP | CM146:AP | CM146:AP | CM146:AP |
| C142M | | | CM154 | CM154 | CM147 | CM147 | CM147 |
| CMSTM | CMSTAT | CMSTAT | CMSTAT | CMSTAT | | | |
| | | | CLHRBG | CLHRBG | CL1:HR | CL1:HR | CL1:HR |
| | | | CLMNBG | CLMNBG | CL1:MN | CL1:MN | CL1:MN |
| | | | CLAPBG | CLAPBG | CL1:AP | CL1:AP | CL1:AP |
| | | CL1 | CL2 | CL2 | CL2 | CL2 | CL2 |
| | | CL2 | CL3 | CL3 | CL3 | CL3 | CL3 |
| | | CL2A | CL4 | CL4 | CL4 | CL4 | CL4 |
| | | CL3 | CL5 | CL5 | CL5 | CL5 | CL5 |
| C1L | | | | | | | |
| C2L | | CL4 | CL6 | CL6 | CL6 | CL6 | CL6 |
| C3L | | CL5 | CL7 | CL7 | CL7 | CL7 | CL7 |
| C4ML | | CL6:M | | | | | |
| C4DL | | CL6:D | | | | | |
| C4YL | | CL6:Y | | | | | |
| C5L | | CL7 | CL8 | CL8 | CL8 | CL8 | CL8 |
| C6L | | CL8 | CL9 | CL9 | CL9 | CL9 | CL9 |
| | | CL9 | CL10 | CL10 | CL10 | CL10 | CL10 |
| B22:AL | | BL27:A | CL11:B | CL11:B | CL11BR | CL11BR | CL11BR |
| B22:BL | | BL27:B | CL11:L | CL11:L | CL11LU | CL11LU | CL11LU |
| B22:CL | | BL27:C | CL11:S | CL11:S | CL11SU | CL11SU | CL11SU |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| B23L | | BL28 | CL12 | CL12 | CL12 | CL12 | CL12 |
| B24L | | BL29 | CL13 | CL13 | CL13 | CL13 | CL13 |
| B25L | | BL30 | | | | | |
| B26L | | BL31 | | | | | |
| C6AL | | CL10 | CL14 | CL14 | CL14 | CL14 | CL14 |
| C6BL | | CL11 | CL15 | CL15 | CL15 | CL15 | CL15 |
| C6CL | | CL12 | CL16 | CL16 | CL16 | CL16 | CL16 |
| | | | | | CL17A-B | CL17A-B | CL17A-B |
| C7L | | CL13 | CL17 | CL17 | CL18:A | CL18:A | CL18:A |
| C8L | | CL14 | CL18 | CL18 | | | |
| C8A:A-BL | | CL15:A-B | CL19:A-B | CL19:A-B | | | |
| C9:A-HL | | | | | | | |
| C10L | | | | | | | |
| C13L | | | | | | | |
| C14:A-BL | | CL16:A-B | CL20:A-B | CL20:A-B | | | |
| C11L | | | | | | | |
| C12:AL } | | CL16A:A | CL20:CA | CL20:CA | CL18:B | CL18:B | CL18:B |
| C12:BL } | | | | | | | |
| | | | | | CL18:C | CL18:C | CL18:C |
| | | | | | CL18:D | CL18:D | CL18:D |
| | | CL16A:B | CL20:CB | CL20:CB | CL18:E | CL18:E | CL18:E |
| C15L | | CL17 | CL21 | CL21 | CL19 | CL19 | CL19 |
| C16:AL | | CL18A | CL22 | CL22 | CL20 | CL20 | CL20 |
| C16:BL | | CL18B | CL22:A | CL22:A | CL20A | CL20A | CL20A |
| C16:CL | | CL18C | CL22:B | CL22:B | CL21 | CL21 | CL21 |
| C16AL | | CL19 | CL23 | CL23 | CL22 | CL22 | CL22 |
| C16B:AL | | CL20A | CL24 | CL24 | CL23 | CL23 | CL23 |
| C16B:BL | | CL20B | CL24:A | CL24:A | CL23A | CL23A | CL23A |
| C16B:CL | | CL20C | CL24:B | CL24:B | CL24 | CL24 | CL24 |
| C18L | | CL21 | CL25 | CL25 | CL25 | CL25 | CL25 |
| C17ML | | CL22 | CL26 | CL26 | CL26 | CL26 | CL26 |
| C17YL | | | | | | | |
| C19L | | CL23 | CL27 | CL27 | CL27 | CL27 | CL27 |
| C20L | | CL24 | CL28 | CL28 | CL28 | CL28 | CL28 |
| | | CL25 | CL29 | CL29 | CL29 | CL29 | CL29 |
| | | CL26 | CL30 | CL30 | CL30 | CL30 | CL30 |
| | | CL27 | CL31 | CL31 | CL31 | CL31 | CL31 |
| | | CL28 | CL32 | CL32 | CL32 | CL32 | CL32 |
| C21L | | CL29 | CL33 | CL33 | CL33 | CL33 | CL33 |
| C22L | | | | | | | |
| C23:AL | | CL30:A | CL34:A | CL34:A | CL34:A | CL34:A | CL34:A |
| C23:BL | | CL30:B | CL34:B | CL34:B | CL34:B | CL34:B | CL34:B |
| C23:CL | | CL30:C | CL34:C | CL34:C | | | |
| C23:DL | | CL30:D | CL34:D | CL34:D | CL34:C | CL34:C | CL34:C |
| C24L | | CL31 | CL35 | CL35 | CL35 | CL35 | CL35 |
| C25L | | CL32 | CL36 | CL36 | CL36 | CL36 | CL36 |
| C26L | | CL33 | CL37 | CL37 | | | |
| | | | CL37:X | CL37:X | | | |
| C37:1L | | CL34:1 | CL38:1 | CL38:1 | CL37:1 | CL37:1 | CL37:1 |
| C40A:A1L | | CL37:A1 | CL39:1A | CL39:1A | CL38:A1 | CL38:A1 | CL38:A1 |
| C40A:B1L | | CL37:B1 | CL39:1B | CL39:1B | CL38:B1 | CL38:B1 | CL38:B1 |
| C40A:C1L | | CL37:C1 | CL39:1C | CL39:1C | CL38:C1 | CL38:C1 | CL38:C1 |
| C40A:D1L | | CL37:D1 | CL39:1D | CL39:1D | CL38:D1 | CL38:D1 | CL38:D1 |
| C39AB:1L | | CL35:1 | CL40:1 | CL40:1 | CL39:1 | CL39:1 | CL39:1 |
| C40:A1L | | CL36:A1 | CL41:1A | CL41:1A | CL40:A1 | CL40:A1 | CL40:A1 |
| C40:B1L | | CL36:B1 | CL41:1B | CL41:1B | CL40:B1 | CL40:B1 | CL40:B1 |
| C40:C1L | | CL36:C1 | CL41:1C | CL41:1C | CL40:C1 | CL40:C1 | CL40:C1 |
| | | CL36:D1 | CL41:1D | CL41:1D | CL40:D1 | CL40:D1 | CL40:D1 |
| | | CL36:E1 | CL41:1E | CL41:1E | CL40:E1 | CL40:E1 | CL40:E1 |
| C37:2L | | CL34:2 | CL38:2 | CL38:2 | CL37:2 | CL37:2 | CL37:2 |
| C40A:A2L | | CL37:A2 | CL39:2A | CL39:2A | CL38:A2 | CL38:A2 | CL38:A2 |
| C40A:B2L | | CL37:B2 | CL39:2B | CL39:2B | CL38:B2 | CL38:B2 | CL38:B2 |
| C40A:C2L | | CL37:C2 | CL39:2C | CL39:2C | CL38:C2 | CL38:C2 | CL38:C2 |
| C40A:D2L | | CL37:D2 | CL39:2D | CL39:2D | CL38:D2 | CL38:D2 | CL38:D2 |
| C39AB:2L | | CL35:2 | CL40:2 | CL40:2 | CL39:2 | CL39:2 | CL39:2 |
| C40:A2L | | CL36:A2 | CL41:2A | CL41:2A | CL40:A2 | CL40:A2 | CL40:A2 |
| C40:B2L | | CL36:B2 | CL41:2B | CL41:2B | CL40:B2 | CL40:B2 | CL40:B2 |
| C40:C2L | | CL36:C2 | CL41:2C | CL41:2C | CL40:C2 | CL40:C2 | CL40:C2 |
| | | CL36:D2 | CL41:2D | CL41:2D | CL40:D2 | CL40:D2 | CL40:D2 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | CL36:E2 | CL41:2E | CL41:2E | CL40:E2 | CL40:E2 | CL40:E2 |
| C40:A3L | | | | | | | |
| C40:B3L | | | | | | | |
| C40:C3L | | | | | | | |
| C37:4L | | CL34:3 | CL38:3 | CL38:3 | CL37:3 | CL37:3 | CL37:3 |
| C39AB:4L | | CL35:3 | CL40:3 | CL40:3 | CL39:3 | CL39:3 | CL39:3 |
| C40:A4L | | CL36:A3 | CL41:3A | CL41:3A | CL40:A3 | CL40:A3 | CL40:A3 |
| C40:B4L | | CL36:B3 | CL41:3B | CL41:3B | CL40:B3 | CL40:B3 | CL40:B3 |
| C40:C4L | | CL36:C3 | CL41:3C | CL41:3C | CL40:C3 | CL40:C3 | CL40:C3 |
| | | CL36:D3 | CL41:3D | CL41:3D | CL40:D3 | CL40:D3 | CL40:D3 |
| | | CL36:E3 | CL41:3E | CL41:3E | CL40:E3 | CL40:E3 | CL40:E3 |
| | | CL34:4A | CL38:OF | CL38:OF | | | |
| C37:5L | | CL34:4B | CL38:4 | CL38:4 | CL37:4 | CL37:4 | CL37:4 |
| C40A:A5L | | CL37:A4 | CL39:4A | CL39:4A | CL38:A4 | CL38:A4 | CL38:A4 |
| C40A:B5L | | CL37:B4 | CL39:4B | CL39:4B | CL38:B4 | CL38:B4 | CL38:B4 |
| C40A:C5L | | CL37:C4 | CL39:4C | CL39:4C | CL38:C4 | CL38:C4 | CL38:C4 |
| C40A:D5L | | CL37:D4 | CL39:4D | CL39:4D | CL38:D4 | CL38:D4 | CL38:D4 |
| C39AB:5L | | CL35:4 | CL40:4 | CL40:4 | CL39:4 | CL39:4 | CL39:4 |
| C40:A5L | | CL36:A4 | CL41:4A | CL41:4A | CL40:A4 | CL40:A4 | CL40:A4 |
| C40:B5L | | CL36:B4 | CL41:4B | CL41:4B | CL40:B4 | CL40:B4 | CL40:B4 |
| C40:C5L | | CL36:C4 | CL41:4C | CL41:4C | CL40:C4 | CL40:C4 | CL40:C4 |
| | | CL36:D4 | CL41:4D | CL41:4D | CL40:D4 | CL40:D4 | CL40:D4 |
| | | CL36:E4 | CL41:4E | CL41:4E | CL40:E4 | CL40:E4 | CL40:E4 |
| C37:6L | | CL34:5 | CL38:5 | CL38:5 | CL37:6 | CL37:6 | CL37:6 |
| C39AB:6L | | CL35:5 | CL40:5 | CL40:5 | CL39:6 | CL39:6 | CL39:6 |
| C40:A6L | | CL36:A5 | CL41:5A | CL41:5A | CL40:A6 | CL40:A6 | CL40:A6 |
| C40:B6L | | CL36:B5 | CL41:5B | CL41:5B | CL40:B6 | CL40:B6 | CL40:B6 |
| C40:C6L | | CL36:C5 | CL41:5C | CL41:5C | CL40:C6 | CL40:C6 | CL40:C6 |
| | | CL36:D5 | CL41:5D | CL41:5D | CL40:D6 | CL40:D6 | CL40:D6 |
| | | CL36:E5 | CL41:5E | CL41:5E | CL40:E6 | CL40:E6 | CL40:E6 |
| C37:7L | | CL34:6 | CL38:6 | CL38:6 | CL37:5 | CL37:5 | CL37:5 |
| C39AB:7L | | CL35:6 | CL40:6 | CL40:6 | CL39:5 | CL39:5 | CL39:5 |
| C40:A7L | | CL36:A6 | CL41:6A | CL41:6A | CL40:A5 | CL40:A5 | CL40:A5 |
| | | CL36:D6 | CL41:6D | CL41:6D | CL40:D5 | CL40:D5 | CL40:D5 |
| | | CL36:E6 | CL41:6E | CL41:6E | CL40:E5 | CL40:E5 | CL40:E5 |
| C40:A8L | | | | | | | |
| C40:B8L | | | | | | | |
| C40:C8L | | | | | | | |
| C37:9L | | CL34:7 | CL38:7 | CL38:7 | CL37:7 | CL37:7 | CL37:7 |
| C39AB:9L | | CL35:7 | CL40:7 | CL40:7 | CL39:7 | CL39:7 | CL39:7 |
| C40:A9L | | CL36:A7 | CL41:7A | CL41:7A | CL40:A7 | CL40:A7 | CL40:A7 |
| | | CL36:D7 | CL41:7D | CL41:7D | CL40:D7 | CL40:D7 | CL40:D7 |
| | | CL36:E7 | CL41:7E | CL41:7E | CL40:E7 | CL40:E7 | CL40:E7 |
| | | CL38:A1-5 | CL42:1-3A | CL42:1-3A | CL41:A1-2 | CL41:A1-2 | CL41:A1-2 |
| | | CL38:B1-5 | CL42:1-3B | CL42:1-3B | CL41:B1-2 | CL41:B1-2 | CL41:B1-2 |
| | | CL38:C1-5 | CL42:1-3C | CL42:1-3C | CL41:C1-2 | CL41:C1-2 | CL41:C1-2 |
| | | CL38:D1-5 | CL42:1-3D | CL42:1-3D | CL41:D1-2 | CL41:D1-2 | CL41:D1-2 |
| | | CL38:E1-5 | CL42:1-3E | CL42:1-3E | CL41:E1-2 | CL41:E1-2 | CL41:F1-2 |
| | | CL38:F1-5 | CL42:1-3F | CL42:1-3F | CL41:F1-2 | CL41:F1-2 | CL41:E1-2 |
| | | CL38:G1-5 | CL42:1-3G | CL42:1-3G | CL41:G1-2 | CL41:G1-2 | CL41:G1-2 |
| | | CL39:A1-5 | CL43:1-3A | CL43:1-3A | CL42:A1-2 | CL42:A1-2 | CL42:A1-2 |
| | | CL39:B1-5 | CL43:1-3B | CL43:1-3B | CL42:B1-2 | CL42:B1-2 | CL42:B1-2 |
| | | CL39:C1-5 | CL43:1-3C | CL43:1-3C | CL42:C1-2 | CL42:C1-2 | CL42:C1-2 |
| | | CL39:D1-5 | CL43:1-3D | CL43:1-3D | CL42:D1-2 | CL42:D1-2 | CL42:D1-2 |
| | | | | | | | CL42:E |
| C41:AL | | CL40:A | | | | | |
| C41:BL | | CL40:B | | | | | |
| C41:CL | | CL40:C | | | | | |
| C41:DL | | CL40:D | | | | | |
| | | CL40:E | | | | | |
| C41:EL | | CL40:F | | | | | |
| C41:FL | | CL40:G | | | | | |
| C41:GL | | CL40:H | | | | | |
| C41:HL | | CL40:I | | | | | |
| C41:IL | | CL40:J | | | | | |
| | | CL40:K | | | | | |
| C41:JL | | CL40:L | | | | | |
| C42:AL | | | | | | | |
| C42:BL | | CL41:A | | | | | |

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|---|---|---|---|---|---|---|---|
| C42:CL | | CL41:B | | | | | |
| C42:DL | | CL41:C | | | | | |
| C42:EL | | CL41:D | | | | | |
| C42:FL | | CL41:E | | | | | |
| C42:GL | | CL41:F | | | | | |
| C43L | | CL42 | CL46 | CL46 | CL45 | CL45 | CL45 |
| C44:A-IL | | CL43:A-I | | | | | |
| C45L | | CL44 | CL48 | CL48 | CL47 | CL47 | CL47 |
| C46:1-14L | | CL45:1-12 | CL49:1-12 | CL49:1-12 | CL48:1-12 | CL48:1-12 | CL48:1-12 |
| | | CL46:1-12 | CL50:1-12 | CL50:1-12 | CL49:1-12 | CL49:1-12 | CL49:1-12 |
| | | CL47:2-12 | CL50:A2-12 | CL50:A2-12 | | | |
| | | CL48:2-12 | CL50:B2-12 | CL50:B2-12 | | | |
| C47:1-14L | | CL49:1-12 | CL51:1-12 | CL51:1-12 | CL50:1-12 | CL50:1-12 | CL50:1-12 |
| C48:1-14L | | CL50:1-12 | CL52:1-12 | CL52:1-12 | CL51:1-12 | CL51:1-12 | CL51:1-12 |
| | | | CL53:1-12 | CL53:1-12 | CL52:1-12 | CL52:1-12 | CL52:1-12 |
| | | | CL54:1-12 | CL54:1-12 | CL53:1-12 | CL53:1-12 | CL53:1-12 |
| | | | CL55:1-12 | CL55:1-12 | CL54:1-12 | CL54:1-12 | CL54:1-12 |
| | | | CL56:1-12 | CL56:1-12 | | | |
| | | | CL57:A1-12 | CL57:A1-12 | CL55:A1-12 | CL55:A1-12 | CL55:A1-12 |
| | | | CL57:B1-12 | CL57:B1-12 | CL55:B1-12 | CL55:B1-12 | CL55:B1-12 |
| | | | CL57:C1-12 | CL57:C1-12 | CL55:C1-12 | CL55:C1-12 | CL55:C1-12 |
| | | | CL57:D1-12 | CL57:D1-12 | CL55:D1-12 | CL55:D1-12 | CL55:D1-12 |
| | | | CL57:E1-12 | CL57:E1-12 | CL55:E1-12 | CL55:E1-12 | CL55:E1-12 |
| | | | CL57:F1-12 | CL57:F1-12 | CL55:F1-12 | CL55:F1-12 | CL55:F1-12 |
| | | | CL57:G1-12 | CL57:G1-12 | CL55:G1-12 | CL55:G1-12 | CL55:G1-12 |
| | | | CL57:H1-12 | CL57:H1-12 | CL55:H1-12 | CL55:H1-12 | CL55:H1-12 |
| | | | CL57:I1-12 | CL57:I1-12 | CL55:I1-12 | CL55:I1-12 | CL55:I1-12 |
| C49:1-14L | | CL51:1-12 | CL58:1-12 | CL58:1-12 | CL56:1-12 | CL56:1-12 | CL56:1-12 |
| C50L | | CL52 | CL59 | CL59 | CL57 | CL57 | CL57 |
| | | CL53 | CL60 | CL60 | CL58 | CL58 | CL58 |
| C51:A-CL | | CL54:A-C | CL61:A-C | CL61:A-C | CL59A-C | CL59A-C | CL59A-C |
| C51AL | | CL55 | CL62 | CL62 | CL60 | CL60 | CL60 |
| C52L | | CL56 | CL63 | CL63 | CL61 | CL61 | CL61 |
| C53L | | CL57 | CL64 | CL64 | CL62 | CL62 | CL62 |
| C54L | | CL58 | CL65 | CL65 | CL63 | CL63 | CL63 |
| C55L | | CL59 | CL66 | CL66 | CL64 | CL64 | CL64 |
| C56:A-BL | | CL60:A-B | CL67:A-B | CL67:A-B | CL65A-B | CL65A-B | CL65A-B |
| C27L | | CL61 | CL68 | CL68 | CL66 | CL66 | CL66 |
| C28L | | CL62 | CL69 | CL69 | CL67 | CL67 | CL67 |
| C29:A1-2L | | CL63:A1-2<br>CL68:A | CL70:A1-3 | CL70:A1-3 | CL68:A1-3 | CL68:A1-3 | CL68:A1-3 |
| C29:B1-2L | | CL63:B1-2<br>CL68:B | CL70:B1-3 | CL70:B1-3 | CL68:B1-3 | CL68:B1-3 | CL68:B1-3 |
| C29:C1-2L | | CL63:C1-2<br>CL68:C | CL70:C1-3 | CL70:C1-3 | CL68:C1-3 | CL68:C1-3 | CL68:C1-3 |
| C29:D1-2L | | CL63:D1-2<br>CL68:D | CL70:D1-3 | CL70:D1-3 | CL68:D1-3 | CL68:D1-3 | CL68:D1-3 |
| C29:E1-2L | | CL63:E1-2<br>CL68:E | CL70:E1-3 | CL70:E1-3 | CL68:E1-3 | CL68:E1-3 | CL68:E1-3 |
| C29:F1-2L | | CL63:F1-2<br>CL68:F | CL70:F1-3 | CL70:F1-3 | CL68:F1-3 | CL68:F1-3 | CL68:F1-3 |
| C29:G1-2L | | CL63:G1-2<br>CL68:G | CL70:G1-3 | CL70:G1-3 | CL68:G1-3 | CL68:G1-3 | CL68:G1-3 |
| C30:1-2L | | CL64:1-2<br>CL69 | CL71:1-3 | CL71:1-3 | CL69:1-3 | CL69:1-3 | CL69:1-3 |
| C31:1-2L | | CL65:1-2<br>CL70 | CL72:1-3 | CL72:1-3 | CL70:1-3 | CL70:1-3 | CL70:1-3 |
| C32:1-2L | | CL66:1-2<br>CL71 | CL73:1-3 | CL73:1-3 | CL71:1-3 | CL71:1-3 | CL71:1-3 |
| | | CL67 | | | | | |
| | | CL72 | CL74 | CL74 | CL72 | CL72 | CL72 |
| | | CL73 | CL75 | CL75 | CL73 | CL73 | CL73 |
| | | CL74 | CL76 | CL76 | | | |
| | | CL75:A-C | CL77:1-3 | CL77:1-3 | | | |
| C33L | | CL76 | | | | | |
| C34L | | | | | | | |
| C35L | | | | | | | |
| C36:A-GL | | | | | | | |
| C57L | | CL77 | CL78 | CL78 | CL74 | CL74 | CL74 |

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|---|---|---|---|---|---|---|---|
| C58:1-5L | | CL78:1-5 | CL79:1-5 | CL79:1-5 | CL75:1-2 | CL75:1-2 | CL75:1-2 |
| C59:1-5L | | CL79:1-5 | CL80:1-5 | CL80:1-5 | CL76:1-2 | CL76:1-2 | CL76:1-2 |
| C60:1-4L | | CL80:1-4 | CL81:1-4 | CL81:1-4 | CL77:1 | CL77:1 | CL77:1 |
| C61L | | CL81 | CL82 | CL82 | | | |
| C62L | | CL82 | | | | | |
| | | CL83 | CL83 | CL83 | | | |
| | | CL84 | CL84 | CL84 | | | |
| | | CL85 | CL85 | CL85 | | | |
| | | CL86 | | | | | |
| C63L | | CL87 | | | | | |
| | | | CLHREN | CLHREN | CL78:HR | CL78:HR | CL78:HR |
| | | | CLMNEN | CLMNEN | CL78:MN | CL78:MN | CL78:MN |
| | | | CLAPEN | CLAPEN | CL78:AP | CL78:AP | CL78:AP |
| C64L | | | CL87 | CL87 | CL79 | CL79 | CL79 |
| CMSTL | | CLSTAT | | | | | |
| | | | D1 | D1 | D1 | D1 | D1 |
| | | | D2 | D2 | D2 | D2 | D2 |
| | | | D2A | D2A | D2A | D2A | D2A |
| | | | D2B | D2B | D2B | D2B | D2B |
| | | | | | D3 | D3 | D3 |
| | | | D3A:HR | D3A:HR | D4:HR | D4:HR | D4:HR |
| | | | D3A:MN | D3A:MN | D4:MN | D4:MN | D4:MN |
| | | | D3B:AP | D3B:AP | D4:AP | D4:AP | D4:AP |
| | | DS1 | D4 | D4 | D5 | D5 | D5 |
| | | DS2 | D5 | D5 | D6 | D6 | D6 |
| | | DS3 | D6 | D6 | D7 | D7 | D7 |
| | | DS4 | D7 | D7 | D8 | D8 | D8 |
| | | DS5 | D8 | D8 | D9 | D9 | D9 |
| | | DS6:1-3 | D9:1-3 | D9:1-3 | D10:1-4 | D10:1-4 | D10:1-4 |
| | | DS7 | D10 | D10 | D11 | D11 | D11 |
| | | DS8 | D11 | D11 | D12 | D12 | D12 |
| | | | D12 | D12 | D13 | D13 | D13 |
| | | DS9 | D13 | D13 | D14 | D14 | D14 |
| | | DS10 | D14 | D14 | D15 | D15 | D15 |
| | | DS11 | D15 | D15 | D16 | D16 | D16 |
| | | DS12:A-D | D16:A-D | D16:A-D | D17:A-D | D17:A-D | D17:A-D |
| | | DS13:A-B | D17:A-B | D17:A-B | D18:A-B | D18:A-B | D18:A-B |
| | | | D18 | D18 | D19 | D19 | D19 |
| | | DS13:C | D18A | D18A | D19A | D19A | D19A |
| | | DS14 | D19 | D19 | D20 | D20 | D20 |
| | | DS15:A-E1 | D20:A-E | D20:A-E | D21:A-D2 | D21:A-D2 | D21:A-D2 |
| | | DS16:A-F | D21:A-F | D21:A-F | D22:A-F | D22:A-F | D22:A-F |
| | | | D22 | D22 | D23 | D23 | D23 |
| | | DS16:H | D22:A | D22:A | D23A | D23A | D23A |
| | | | D23 | D23 | D24 | D24 | D24 |
| | | DS16:G | D23:A | D23:A | D25 | D25 | D25 |
| | | DS16:I | D24 | D24 | D26 | D26 | D26 |
| | | DS16:J | | | | | |
| | | DS17 | D25 | D25 | D27 | D27 | D27 |
| | | DS18 | D26 | D26 | D28 | D28 | D28 |
| | | | D26A:1-3 | D26A:1-3 | D28A:1-4 | D28A:1-4 | D28A:1-4 |
| | | DSSTAT | | | | | |
| | | | D27A:HR | D27A:HR | D29:HR | D29:HR | D29:HR |
| | | | D27A:MN | D27A:MN | D29:MN | D29:MN | D29:MN |
| | | | D27B:AP | D27B:AP | D29:AP | D29:AP | D29:AP |
| PLANS | | | D28 | D28 | D30 | D30 | D30 |
| PLANSMH | D1 | DL1 | | | | | |
| STAY | | | D28A | D28A | D30A | D30A | D30A |
| STAYMH | | | | | | | |
| | D2 | DL2 | D29 | D29 | D31 | D31 | D31 |
| | D2A:1-3 | DL3:1-3 | D30:1-3 | D30:1-3 | D32:1-4 | D32:1-4 | D32:1-4 |
| MHPARK | D3 | DL4 | D31 | D31 | D33 | D33 | D33 |
| EXITFEE | D4 | DL5 | D32 | D32 | D34 | D34 | D34 |
| MOVEMO | D5A:M | DL7:M | D33A:M | D33A:M | D35A:M | D35A:M | D35A:M |
| MOVEINMM | | | | | | | |
| MOVEYR | D5A:Y | DL7:Y | D33A:Y | D33A:Y | D35A:Y | D35A:Y | D35A:Y |
| MOVEINMY | | | | | | | |
| MOVEIN | D5B | DL7:B | D33BC | D33BC | D35BC | D35BC | D35BC |
| MOVEINMH | | | | | | | |

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|---|---|---|---|---|---|---|---|
| BEFORE | D6 | DL8 | D34 | D34 | D36 | D36 | D36 |
| BEFOREMH | | | | | | | |
| MONTHTH | D7:M | DL9:M | D35:M | D35:M | D37:M | D37:M | D37:M |
| DATEMHM | | | | | | | |
| DATE | D7:Y | DL9:Y | D35:Y | D35:Y | D37:Y | D37:Y | D37:Y |
| DATEMHY | | | | | | | |
| DINST1 | D8 | DL10 | D36 | D36 | D38 | D38 | D38 |
| DINST1MH | | | | | | | |
| SINCE | | | | | | | |
| SINCEMH | | | | | | | |
| RETURNM | | | | | | | |
| RETURNMM | | | | | | | |
| RETURNY | | | | | | | |
| RETURNMY | | | | | | | |
| RETURNB | | | | | | | |
| RETURNMB | | | | | | | |
| DINST2 | | | | | | | |
| DINST2MH | | | | | | | |
| HOWFIND | D9 | DL11 | D37 | D37 | D39 | D39 | D39 |
| DINST3 | D10 | DL12 | D38 | D38 | D40 | D40 | D40 |
| | D11 | DL13 | D39 | D39 | D41 | D41 | D41 |
| | | | D40 | D40 | D42 | D42 | D42 |
| | | | | | D44:1-4 | D44:1-4 | D44:1-4 |
| | | | | | D45 | D45 | D45 |
| PLACES | D12 | DL14 | D41 | D41 | D46 | D46 | D46 |
| MINSAWAY | D13 | | | | | | |
| | | DL15 | D42 | D42 | | | |
| | D14 | DL16 | D43 | D43 | D43 | D43 | D43 |
| | D15 | | | | | | |
| MEANSR | D16:A | DL17:A | D44:A | D44:A | D47:A | D47:A | D47:A |
| MEANSN | D16:B | DL17:B | D44:B | D44:B | D47:B | D47:B | D47:B |
| MEANSA | D16:C | DL17:C | D44:C | D44:C | D47:C | D47:C | D47:C |
| MEANSF | D16:D | DL17:D | D44:D | D44:D | D47:D | D47:D | D47:D |
| | | DL18:A-B | D45:A-B | D45:A-B | D48:A-B | D48:A-B | D48:A-B |
| | | | D46 | D46 | D49 | D49 | D49 |
| | | DL18:C | D46:A | D46:A | D49:A | D49:A | D49:A |
| | | DL19 | D47 | D47 | D50 | D50 | D50 |
| | | DL20:A-E1 | D48:A-E | D48:A-E | D51:A-D2 | D51:A-D2 | D51:A-D2 |
| HOWLONG | D17:A | DL21:A | D49:A | D49:A | D52:A | D52:A | D52:A |
| PERIOD | D17:B | DL21:B | D49:B | D49:B | D52:B | D52:B | D52:B |
| PROBAGE | D18:A | DL22:A | D50:A | D50:A | D53:A | D53:A | D53:A |
| PROBSEX | D18:B | DL22:B | D50:B | D50:B | D53:B | D53:B | D53:B |
| PROBMS | D18:C | DL22:C | D50:C | D50:C | D53:C | D53:C | D53:C |
| PROBRACE | D18:D | DL22:D | D50:D | D50:D | D53:D | D53:D | D53:D |
| PROBNAT | D18:E | DL22:E | D50:E | D50:E | D53:E | D53:E | D53:E |
| PROB | D18:F | DL22:F | D50:F | D50:F | D53:F | D53:F | D53:F |
| | | | D51 | D51 | D54 | D54 | D54 |
| PROBPETS | D18:H | DL22:H | D51:A | D51:A | D54:A | D54:A | D54:A |
| | | | D52 | D52 | D55 | D55 | D55 |
| PROBKIDS | D18:G | DL22:G | D52:A | D52:A | D55:A | D55:A | D55:A |
| | D18:I | DL22:I | D53 | D53 | D56 | D56 | D56 |
| | D18:J | DL22:J | | | | | |
| MOVECOST | D19 | DL23 | D54 | D54 | D57 | D57 | D57 |
| DINST4MH | D20 | DL24 | D55 | D55 | D58 | D58 | D58 |
| ENTFEEMH | D21 | DL25 | D56 | D56 | D59 | D59 | D59 |
| REASON2-4 | D22:A1-3 | DL26:1-3 | D57:1-3 | D57:1-3 | D60:1-4 | D60:1-4 | D60:1-4 |
| REASON1 | D22A | DL26A | D57A | D57A | D60A | D60A | D60A |
| | D22B | | | | | | |
| | D22C:1-31 | | | | | | |
| | D22D:1-3 | | | | | | |
| | D22E:1-3 | | | | | | |
| DINST5TH | | | | | | | |
| DINST5MH | D23 | DL27 | D58 | D58 | D61 | D61 | D61 |
| DINST5LR | | | | | | | |
| FSTRENT | D24 | DL28 | | | | | |
| FSTRNTMH | | | | | | | |
| | D25:A | DL29:A | | | | | |
| | D25:B | DL29:B | | | | | |
| | D25:C | | | | | | |

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|---|---|---|---|---|---|---|---|
| PAYPRD } PAYPRDMH } | D25A | DL30 | | | | | |
| | D26 | DL31 | | | | | |
| | D27:A } D27:C } | DL32:A | | | | | |
| | D27:B | DL32:C | | | | | |
| | D27A | DL33 | | | | | |
| | D28 | DL34 | D59 | D59 | D62 | D62 | D62 |
| | D28A:1-6 | DL35:A-F | D60:A-F | D60:A-F | D63:A-F | D63:A-F | D63:A-F |
| | D28B:1-6 | DL36:A-F | D61:A-F | D61:A-F | D64:A-F | D64:A-F | D64:A-F |
| UTILS(A-D) | D30:A-D | DL38:A-D | | | | | |
| | D29A:1 | DL39:A | D62:A | D62:A | D65A | D65A | D65A |
| | D29A:2 | DL39:B | { D62:B | D62:B | D65B | D65B | D65B |
| | | | { D62:C | D62:C | D65C | D65C | D65C |
| | D29A:3 | DL39:C | D62:D | D62:D | D65D | D65D | D65D |
| | D29B:1 | DL40:A | D63:A | D63:A | D66:A | D66:A | D66:A |
| | D29B:2 | DL40:B | { D63:B | D63:B | D66:B | D66:B | D66:B |
| | | | { D63:C | D63:C | D66:C | D66:C | D66:C |
| | D29B:3 | DL40:C | D63:D | D63:D | D66:D | D66:D | D66:D |
| VALPROPA | | | | | | | |
| VALPROPB | | | | | | | |
| VALUHOUS | | | | | | | |
| VALULAND | | | | | | | |
| ORGMS | D31 | DL41 | D64 | D64 | D67 | D67 | D67 |
| MINORS | D32 | DL42 | D65 | D65 | D68 | D68 | D68 |
| HHSIZED | D33 | DL43 | D66 | D66 | D69 | D69 | D69 |
| FSTLOC | D34:A1 | DL44A1 | D67A:1 | D67A:1 | D70A:1 | D70A:1 | D70A:1 |
| FSTDATEM | D34:B11 | DL44B:1M | D67B:M1 | D67B:M1 | D70B:M1 | D70B:M1 | D70B:M1 |
| FSTDATEY | D34:B12 | DL44B:1Y | D67B:Y1 | D67B:Y1 | D70B:Y1 | D70B:Y1 | D70B:Y1 |
| | D34:B13 | DL44B:1B | D67B:1 | D67B:1 | D70B:1 | D70B:1 | D70B:1 |
| | D34:C1 | DL44C1 | D67C:1 | D67C:1 | D70C:1 | D70C:1 | D70C:1 |
| FSTADD | D35:A1 | DL45A1 | D68A:1 | D68A:1 | D71A:1 | D71A:1 | D71A:1 |
| FSTNC | D35:B1 | DL45B1 | D68B:1 | D68B:1 | D71B:1 | D71B:1 | D71B:1 |
| SNDLOC | D34:A2 | DL44A2 | D67A:2 | D67A:2 | D70A:2 | D70A:2 | D70A:2 |
| SNDDATED | D34:B21 | DL44B:2M | D67B:M2 | D67B:M2 | D70B:M2 | D70B:M2 | D70B:M2 |
| SNDDATEY | D34:B22 | DL44B:2Y | D67B:Y2 | D67B:Y2 | D70B:Y2 | D70B:Y2 | D70B:Y2 |
| | D34:B23 | DL44B:2B | D67B:2 | D67B:2 | D70B:2 | D70B:2 | D70B:2 |
| | D34:C2 | DL44C2 | D67C:2 | D67C:2 | D70C:2 | D70C:2 | D70C:2 |
| SNDADD | D35:A2 | DL45A2 | D68A:2 | D68A:2 | D71A:2 | D71A:2 | D71A:2 |
| SNDND | D35:B2 | DL45B2 | D68B:2 | D68B:2 | D71B:2 | D71B:2 | D71B:2 |
| TRDLOC | D34:A3 | DL44A3 | D67A:3 | D67A:3 | D70A:3 | D70A:3 | D70A:3 |
| TRDDATEM | D34:B31 | DL44B:3M | D67B:M3 | D67B:M3 | D70B:M3 | D70B:M3 | D70B:M3 |
| TRDDATEY | D34:B32 | DL44B:3Y | D67B:Y3 | D67B:Y3 | D70B:Y3 | D70B:Y3 | D70B:Y3 |
| | D34:B33 | DL44B:3B | D67B:3 | D67B:3 | D70B:3 | D70B:3 | D70B:3 |
| | D34:C3 | DL44C3 | D67C:3 | D67C:3 | D70C:3 | D70C:3 | D70C:3 |
| TRDADD | D35:A3 | DL45A3 | D68A:3 | D68A:3 | D71A:3 | D71A:3 | D71A:3 |
| TRDNC | D35:B3 | DL45B3 | D68B:3 | D68B:3 | D71B:3 | D71B:3 | D71B:3 |
| FTHLOC | D34:A4 | DL44A4 | D67A:4 | D67A:4 | D70A:4 | D70A:4 | D70A:4 |
| FTHDATEM | D34:B41 | DL44B:4M | D67B:M4 | D67B:M4 | D70B:M4 | D70B:M4 | D70B:M4 |
| FTHDATEY | D34:B42 | DL44B:4Y | D67B:Y4 | D67B:Y4 | D70B:Y4 | D70B:Y4 | D70B:Y4 |
| | D34:B43 | DL44B:4B | D67B:4 | D67B:4 | D70B:4 | D70B:4 | D70B:4 |
| | D34:C4 | DL44C4 | D67C:4 | D67C:4 | D70C:4 | D70C:4 | D70C:4 |
| FTHADD | D35:A4 | DL45A4 | D68A:4 | D68A:4 | D71A:4 | D71A:4 | D71A:4 |
| FTHNC | D35:B4 | DL45B4 | D68B:4 | D68B:4 | D71B:4 | D71B:4 | D71B:4 |
| FIFLOC | D34:A5 | DL44A5 | D67A:5 | D67A:5 | D70A:5 | D70A:5 | D70A:5 |
| FIFDATEM | D34:B51 | DL44B:5M | D67B:M5 | D67B:M5 | D70B:M5 | D70B:M5 | D70B:M5 |
| FIFDATEY | D34:B52 | DL44B:5Y | D67B:Y5 | D67B:Y5 | D70B:Y5 | D70B:Y5 | D70B:Y5 |
| | D34:B53 | DL44B:5B | D67B:5 | D67B:5 | D70B:5 | D70B:5 | D70B:5 |
| | D34:C5 | DL44C5 | D67C:5 | D67C:5 | D70C:5 | D70C:5 | D70C:5 |
| FIFADD | D35:A5 | DL45A5 | D68A:5 | D68A:5 | D71A:5 | D71A:5 | D71A:5 |
| FIFNC | D35:B5 | DL45B5 | D68B:5 | D68B:5 | D71B:5 | D71B:5 | D71B:5 |
| XTHLOC | D34:A6 | DL44A6 | D67A:6 | D67A:6 | D70A:6 | D70A:6 | D70A:6 |
| XTHDATEM | D34:B61 | DL44B:6M | D67B:M6 | D67B:M6 | D70B:M6 | D70B:M6 | D70B:M6 |
| XTHDATEY | D34:B62 | DL44B:6Y | D67B:Y6 | D67B:Y6 | D70B:Y6 | D70B:Y6 | D70B:Y6 |
| | D34:B63 | DL44B:6B | D67B:6 | D67B:6 | D70B:6 | D70B:6 | D70B:6 |
| | D34:C6 | DL44C6 | D67C:6 | D67C:6 | D70C:6 | D70C:6 | D70C:6 |
| XTHADD | D35:A6 | DL45A6 | D68A:6 | D68A:6 | D71A:6 | D71A:6 | D71A:6 |
| XTHNC | D35:B6 | DL45B6 | D68B:6 | D68B:6 | D71B:6 | D71:B6 | D71B:6 |
| | | | D69 | D69 | D72 | D72 | D72 |

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|---|---|---|---|---|---|---|---|
| UNITTYPE | D36 | DL46 | D70 | D70 | D73 | D73 | D73 |
| NTHEXPS | D37 | DL47 | D71 | D71 | D74 | D74 | D74 |
| | | | D72 | D72 | D75 | D75 | D75 |
| PTENURE | D38 | DL48 | D73 | D73 | D76 | D76 | D76 |
| OTHROWNR | D38A | DL49 | D74 | D74 | D77 | D77 | D77 |
| LASTRENT | { D39:A } | DL50:A | D75:AB | D75:AB | D78:A | D78:A | D78:A |
| | { D39:B } | | | | | | |
| | D39:C | DL50:C | D75:C | D75:C | D78:B | D78:B | D78:B |
| RENDPRD | D39A | DL51 | D76 | D76 | D79 | D79 | D79 |
| | | | D77 | D77 | | | |
| | | | D78 | D78 | | | |
| | | | D79 | D79 | D81:1 | D81:1 | D81:1 |
| | | | D80 | D80 | D80 | D80 | D80 |
| | | | D80A:1-2 | D80A:1-2 | D81:2-3 | D81:2-3 | D81:2-3 |
| | | | D81 | D81 | D82 | D82 | D82 |
| | | | D81A | D81A | D82A | D82A | D82A |
| | | | D81B | D81B | D83 | D83 | D83 |
| | | | | | D84 | D84 | D84 |
| ELEC | D40:1 | DL52:A | D82:A | D82:A | D85:A | D85:A | D85:A |
| ELECUSEL | | | | | | | |
| ELECUSEC | | | | | | | |
| ELECUSEW | | | | | | | |
| ELECUSEH | | | | | | | |
| GAS | D40:2 | DL52:B | D82:B | D82:B | D85:B | D85:B | D85:B |
| GASUSEC | | | | | | | |
| GASUSEW | | | | | | | |
| GASUSEH | | | | | | | |
| FUEL | D40:3 | DL52:C | D82:C | D82:C | D85:C | D85:C | D85:C |
| FUELUSEC | | | | | | | |
| FUELUSEW | | | | | | | |
| FUELUSEH | | | | | | | |
| WATER | D40:4 | DL52:D | D82:D | D82:D | D85:D | D85:D | D85:D |
| ELECPAY | D40A:1 | DL53:A | D83:A | D83:A | D86:A | D86:A | D86:A |
| GASPAY | D40A:2 | DL53:B | D83:B | D83:B | D86:B | D86:B | D86:B |
| FUELPAY | D40A:3 | DL53:C | D83:C | D83:C | D86:C | D86:C | D86:C |
| WATERPAY | D40A:4 | DL53:D | D83:D | D83:D | D86:D | D86:D | D86:D |
| D33 | D41A | DL54:A | D84:A | D84:A | D87:A | D87:A | D87:A |
| | D41B | DL54:B | D84:B | D84:B | D87:B | D87:B | D87:B |
| | D42 | DL55 | D85 | D85 | D88 | D88 | D88 |
| D34 | D43 | DL56 | D86 | D86 | D89 | D89 | D89 |
| D35 | D44 | DL57 | D87 | D87 | D90 | D90 | D90 |
| D36 | D45 | DL58 | D88 | D88 | D91 | D91 | D91 |
| D37 | D46 | DL59 | D89 | D89 | D92 | D92 | D92 |
| D38 | D47 | DL60 | D90 | D90 | D93:A | D93:A | D93:A |
| | | | | | D93:B | D93:B | D93:B |
| D39 | D48 | DL61 | D91 | D91 | D94 | D94 | D94 |
| D40:1 | D49C:1 | | | | | | |
| D40:2 | D49:1 | DL62:A | D92:A | D92:A | D95:A | D95:A | D95:A |
| D40:3 | D49:3 | DL62:B | D92:B | D92:B | D95:B | D95:B | D95:B |
| D40:4 | D49:4 | DL62:C | D92:C | D92:C | D95:C | D95:C | D95:C |
| | | | D92:D | D92:D | D95:D | D95:D | D95:D |
| D40:5 | D50:1 | DL62:D | D92:E | D92:E | D95:E | D95:E | D95:E |
| D40A:5 | D50A:1 | | | | | | |
| D40:6 | D50:2 | DL62:E | D92:F | D92:F | D95:F | D95:F | D95:F |
| D40A:6 | D50A:2 | | | | | | |
| D41:2 | D49A:1 | DL63:A | D93:A | D93:A | D96:A | D96:A | D96:A |
| | D49A:2 | | | | | | |
| D41:3 | D49A:3 | DL63:B | D93:B | D93:B | D96:B | D96:B | D96:B |
| D41:4 | D49A:4 | DL63:C | D93:C | D93:C | D96:C | D96:C | D96:C |
| | | | D93:D | D93:D | D96:D | D96:D | D96:D |
| D41:5 | D51:1 | DL63:D | D93:E | D93:E | D96:E | D96:E | D96:E |
| D41:6 | D51:2 | DL63:E | D93:F | D93:F | D96:F | D96:F | D96:F |
| D42:1 | | | | | | | |
| D42A:1 | D49B:1 | | | | | | |
| D42:2 | | | | | | | |
| D42:3 | | | | | | | |
| | | | D94 | D94 | D97 | D97 | D97 |
| | | DL64 | D95 | D95. | D98 | D98 | D98 |
| D43 | D52 | | | | | | |

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|---|---|---|---|---|---|---|---|
| D46 | D55 | DL65 | D96 | D96 | D99 | D99 | D99 |
| D44 | D53 | DL66 | D97 | D97 | D100 | D100 | D100 |
| D45 | D54 | DL67 | D98 | D98 | D101 | D101 | D101 |
| D47 | D56 | DL68 | D99 | D99 | D102 | D102 | D102 |
| D48 | D57 | DL69 | D100 | D100 | D103 | D103 | D103 |
| D48A | D58 | DL70 | D101 | D101 | D104 | D104 | D104 |
| D49 | D59 | DL71 | D102 | D102 | D105 | D105 | D105 |
| D50 | D60 | DL72 | D103 | D103 | D106 | D106 | D106 |
| D51 | D61 | DL73 | D104 | D104 | D107 | D107 | D107 |
| D52 | D62 | | | | | | |
| D53 | D63 | | D105 | D105 | D108 | D108 | D108 |
| | | | D106A:1-4 | D106A:1-4 | D109A:1-4 | D109A:1-4 | D109A:1-4 |
| | | | D106B:1-4 | D106B:1-4 | D109B:1-4 | D109B:1-4 | D109B:1-4 |
| | | | D106C:1-4 | D106C:1-4 | | | |
| D54:A-B | D64:A-B | | | | | | |
| D55 | D65 | DL74 | D107 | D107 | D110 | D110 | D110 |
| D56 | D66 | | | | | | |
| D57 | D67 | DL75 | D108 | D108 | D111 | D111 | D111 |
| D57:A | D67:A | DL75:A | D108:A | D108:A | | | |
| D57:B | D67:B | DL75:B | D108:B | D108:B | D111:A | D111:A | D111:A |
| D57:C1 | D67:C1 | DL75:C | D108:C | D108:C | | | |
| D57:C2-3 | D67:C2-3 | | | | | | |
| D57:D1 | D67:D1 | DL75:D | D108:D | D108:D | | | |
| D57:D2-3 | D67:D2-3 | | | | | | |
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| D57:G | D67:G | | D108:G | D108:G | D111:C | D111:C | D111:C |
| D57:H | D67:H | | D108:H | D108:H | D111:D | D111:D | D111:D |
| D57:I | D67:I | | D108:I | D108:I | D111:E | D111:E | D111:E |
| D57:J | D67:J | DL75:F | D108:J | D108:J | D111:F | D111:F | D111:F |
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| D59 | D70 | DL78 | D111 | D111 | | | |
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| | D74C | DL85 | D118 | D118 | | | |
| | D74D | DL86 | D119 | D119 | | | |
| D66 | D75 | DL87 | D120 | D120 | D114 | D114 | D114 |
| D67 | D76 | DL88 | D121 | D121 | D115 | D115 | D115 |
| D68 | D77 | DL89 | D122 | D122 | D116 | D116 | D116 |
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| D70 | D79 | DL91 | D124 | D124 | D118 | D118 | D118 |
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| | | | D139 | D139 | D132 | D132 | D132 |
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| | | | | | E1 | E1 | E1 |
| E1 | E1 | | E1A | E1A | E1A | E1A | E1A |
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| | | | E2:HR | E2:HR | E2:HR | E2:HR | E2:HR |
| | | | E2:MN | E2:MN | E2:MN | E2:MN | E2:MN |
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| E8:1-4 | E7:1-4 | { ES7:1-4 } { EL7:1-4 } | E9:1-2 | E9:1-2 | E9:1 | E9:1 | E9:1 |
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| E40 | E34 | ES19<br>EL34 | E35 | E35 | E32 | E32 | E32 |
| E41 | E35 | ES20<br>EL35 | E36 | E36 | E33 | E33 | E33 |
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| | | | E37:MN | E37:MN | E34:MN | E34:MN | E34:MN |
| | | | E37:AP | E37:AP | E34:AP | E34:AP | E34:AP |
| EMST | ESTA | ESSTAT<br>ELSTAT | ESTAT | ESTAT | | | |
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| | | | F1B | F1B | F1B | F1B | F1B |
| | | | F2:HR | F2:HR | F2:HR | F2:HR | F2:HR |
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| F8:1-4 | F7:1-4 | FS7:1-4<br>FL7:1-4 | F9:1-2 | F9:1-2 | F9:1 | F9:1 | F9:1 |
| F9:1-4 | F8:1-4 | FS8:1-4<br>FL8:1-4 | F10:1-2 | F10:1-2 | F10:1 | F10:1 | F10:1 |
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| G21:N | G28L | G28:K | G25:K | G25:K | G24:K | G24:K | G24:K |
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| G21:T | G28R | G28:Q | G25:Q | G25:Q | G24:Q | G24:Q | G24:Q |
| G20:U | G27S | G27:R | G24:R | G24:R | G23:R | G23:R | G23:R |
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| | | H33 | H33 | H33 | H34 | H34 | H34 |
| | | H34 | H34 | H34 | H35 | H35 | H35 |
| | | H35:1-5 | H34A:1-5 | H34A:1-5 | H35A:1-5 | H35A:1-5 | H35A:1-5 |
| | | H36 | H35 | H35 | H36 | H36 | H36 |
| | | | H35A | H35A | H36A | H36A | H36A |
| | | H37 | H35B | H35B | H36B | H36B | H36B |
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| | | H38:M | | | | | |
| | | H38:Y | | | | | |
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| | | H41 | H37 | H37 | H38 | H38 | H38 |
| | | H42 | H38 | H38 | H39 | H39 | H39 |
| | | H43 | H39 | H39 | H40 | H40 | H40 |
| | | H44 | H40 | H40 | H41 | H41 | H41 |
| | | H45 | H41 | H41 | H42 | H42 | H42 |
| | | | H41A | H41A | | | |
| | | H45A | H41B | H41B | | | |
| | | H45B | H41C | H41C | | | |
| | | H45C | H41D | H41D | | | |
| | | H45D | H41E | H41E | | | |
| | | | | | H43 | H43 | H43 |
| | | | | | H44 | H44 | H44 |
| | | | | | H45 | H45 | H45 |
| | | | | | H46 | H46 | H46 |
| | | | | | H47:A-H | H47:A-H | H47:A-H |
| | | | | | H48 | H48 | H48 |
| | | | | | H49:A-D | H49:A-D | H49:A-D |
| | | | | | H50:A-D | H50:A-D | H50:A-D |
| | | H46 | H42 | H42 | H51 | H51 | H51 |
| | | H47 | H43 | H43 | H52 | H52 | H52 |
| | | | H44 | H44 | H53 | H53 | H53 |
| | | | H45 | H45 | H54 | H54 | H54 |
| | | | H46 | H46 | H55 | H55 | H55 |
| | | | H47 | H47 | H56 | H56 | H56 |
| | | | H48 | H48 | H57 | H57 | H57 |
| | | | H49:1-8 | H49:1-8 | H58:1-8 | H58:1-8 | H58:1-8 |
| | | | H50 | H50 | H59 | H59 | H59 |
| | | | H51 | H51 | H63 | H63 | H63 |
| | | | H52 | H52 | H60 | H60 | H60 |
| | | | H53 | H53 | H61 | H61 | H61 |
| | | | H53A:1-6 | H53A:1-6 | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
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| | | | | | H64 | H64 | H64 |
| | | | H54 | H54 | H65 | H65 | H65 |
| | | | H54A | H54A | H65A | H65A | H65A |
| | | H48 | H55 | H55 | H66 | H66 | H66 |
| | | | H56 | H56 | H67 | H67 | H67 |
| | | H49 | H57 | H57 | H68 | H68 | H68 |
| | | H50 | H58 | H58 | H69 | H69 | H69 |
| | | H51:A-L | H59:1-6 | H59:1-6 | H70:1-6 | H70:1-6 | H70:1-6 |
| | | | H60 | H60 | H71 | H71 | H71 |
| | | | H60A | H60A | H72 | H72 | H72 |
| | | | H60B:1-5 | H60B:1-5 | H72A:1-5 | H72A:1-5 | H72A:1-5 |
| | | H52 | H61 | H61 | H73 | H73 | H73 |
| | | H53:1-5 | H61A:1-5 | H61A:1-5 | H73A:1-5 | H73A:1-5 | H73A:1-5 |
| | | | H62 | H62 | H74 | H74 | H74 |
| | | | H63:1-5 | H63:1-5 | H75:1-5 | H75:1-5 | H75:1-5 |
| | | | H64 | H64 | H76 | H76 | H76 |
| | | | H65 | H65 | H77 | H77 | H77 |
| | | | H66 | H66 | H78 | H78 | H78 |
| | | | H67 | H67 | H79 | H79 | H79 |
| | | | H68 | H68 | H80 | H80 | H80 |
| | | | H68A:1-5 | H68A:1-5 | H80A:1-5 | H80A:1-5 | H80A:1-5 |
| | | | H69 | H69 | H81 | H81 | H81 |
| | | | H69A:1-5 | H69A:1-5 | H81A:1-5 | H81A:1-5 | H81A:1-5 |
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| | | H54:M | H71:M | H71:M | H83:MO | H83:MO | H83:MO |
| | | H54:Y | H71:Y | H71:Y | H83:YR | H83:YR | H83:YR |
| | | | H72 | H72 | H84 | H84 | H84 |
| | | | H72A:M | H72A:M | H85:MO | H85:MO | H85:MO |
| | | | H72A:Y | H72A:Y | H85:YR | H85:YR | H85:YR |
| | | H55 | H73 | H73 | H86 | H86 | H86 |
| | | H56:A | H74A | H74A | H87:A | H87:A | H87:A |
| | | H56:B | H74B | H74B | H87:B | H87:B | H87:B |
| | | H56:C | | | | | |
| | | | | | H87:C | H87:C | H87:C |
| | | H60 | H75 | H75 | H88 | H88 | H88 |
| | | H61:1-4 | H75A:1-4 | H75A:1-4 | H88A:1-5 | H88A:1-5 | H88A:1-5 |
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| | | H59 | H77 | H77 | H90 | H90 | H90 |
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| | | H67 | H81 | H81 | H94 | H94 | H94 |
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| | | H69 | H83 | H83 | H96 | H96 | H96 |
| | | H70 | H84 | H84 | H97 | H97 | H97 |
| | | | H85 | H85 | H98 | H98 | H98 |
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| | | H75 | | | | | |
| | | H76 | | | | | |
| | | H77 | H86 | H86 | H99 | H99 | H99 |
| | | H78 | H87 | H87 | H100 | H100 | H100 |
| | | | H88:1-3 | H88:1-3 | | | |
| | | | H89 | H89 | H101 | H101 | H101 |
| | | H79 | H90 | H90 | H102 | H102 | H102 |
| | | H80 | H90A | H90A | H102A | H102A | H102:A |
| | | H81:A | H91:1 | H91:1 | H103:1 | H103:1 | H103:1 |
| | | H81:B | H91:2 | H91:2 | H103:2 | H103:2 | H103:2 |
| | | H81:C | H91:3 | H91:3 | H103:3 | H103:3 | H103:3 |
| | | H81:D | H91:4 | H91:4 | H103:4 | H103:4 | H103:4 |
| | | H81:E | H91:5 | H91:5 | H103:5 | H103:5 | H103:5 |
| | | H81:F | H91:6 | H91:6 | H103:6 | H103:6 | H103:6 |
| | | H81:G | H91:7 | H91:7 | H103:7 | H103:7 | H103:7 |

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| | | H83 | | | | | |
| | | H84:A-C | | | | | |
| | | H85 | H92 | H92 | H104 | H104 | H104 |
| | | | H92A | H92A | H105 | H105 | H105 |
| | | H86 | | | | | |
| | | H87 | H93 | H93 | H106 | H106 | H106 |
| | H16B | H88A | | | | | |
| | | H88B | | | | | |
| | H16D | H88D | H94:A | H94:A | H107:A | H107:A | H107:A |
| | | H88E | H94:B | H94:B | H107:B | H107:B | H107:B |
| | | | H94:C | H94:C | H107:C | H107:C | H107:C |
| | H16A | H88J | H94:D | H94:D | H107:D | H107:D | H107:D |
| | | H88F | H94:E | H94:E | H107:E | H107:E | H107:E |
| | H16C | H88C | H94:F | H94:F | H107:G | H107:G | H107:G |
| | | H88I | H94:G | H94:G | H107:F | H107:F | H107:F |
| | | | H94:H | H94:H | H107:H | H107:H | |
| | H16E | H88H | H94:I | H94:I | H107:I | H107:I | H107:H |
| | | | H94:J | H94:J | H107:J | H107:J | H107:I |
| | | H88G | | | | | |
| | H17 | H89 | H95 | H95 | H108 | H108 | H108 |
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| | | H91 | H96 | H96 | H109 | H109 | H109 |
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| | H22A:1-5 | | | | | | |
| | H22A:7 | | | | | | |
| | H23 | | | | | | |
| GHREN | HHREN | HHREN | H98A:HR | H98A:HR | H111:HR | H111:HR | H111:HR |
| GMNEN | HMNEN | HMNEN | H98A:MN | H98A:MN | H111:MN | H111:MN | H111:MN |
| GAPEN | HAPEN | HAPEN | H98B:AP | H98B:AP | H111:AP | H111:AP | H111:AP |
| | | | H99 | H99 | H112 | H112 | H112 |
| | H23A | H96 | H100 | H100 | H113 | H113 | H113 |
| | | H97 | H101 | H101 | H114 | H114 | H114 |
| | | H98 | H101A | H101A | H114:A | H114:A | H114:A |
| MHHRACE | H26 | H99 | H102 | H102 | H115 | H115 | H115 |
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| INCREF | H28 | H101 | H104 | H104 | | | |
| GMST | HSTA | HSTAT | HSTAT | HSTAT | | | |

## Unit Record Folder

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
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| ID1-4 | UINID:1-2 | UINID:1-2 | UID1-3 | UID1-3 | UID1-3 | UID1-3 | UID1-3 |
| FMO | UDATE:M | UDATE:M | UCDM | UCDM | UCDM | UCDM | UMO |
| FDA | UDATE:D | UDATE:D | UCDD | UCDD | UCDD | UCDD | UDA |
| FYR | UDATE:Y | UDATE:Y | UCDY | UCDY | UCDY | UCDY | |
| FSTAT | U1 | UCODE | U1FS | U1FS | U3FS | U3FS | U3FS |
| | U2:1 | U2:1 | U2:1 | U2:1 | U2:1 | U2:1 | U2:2 |
| | U2:2 | U2:2 | U2:2 | U2:2 | U2:2 | U2:2 | U2:3 |
| | U2:3 | U2:3 | U2:3 | U2:3 | U2:3 | U2:3 | U2:4 |
| | U2:4 | U2:4 | U2:4 | U2:4 | U2:4 | U2:4 | U2:5 |
| | U2:5 | U2:5 | U2:5 | U2:5 | U2:5 | U2:5 | U2:1 |
| | | | U2:6 | U2:6 | | | |
| | | | | | | | U2:6 |
| | | | U2:8 | U2:8 | U2:P | U2:P | U2:P |
| | U3:1 | U3:1 | U3:1 | U3:1 | U4:1 | U4:1 | U4:1 |
| | U3:21 | U3:2A | | | | | |
| | U3:22 | U3:2B | U3:2 | U3:2 | U4:2 | U4:2 | U4:2 |
| | U3:23 | U3:2C | | | | | |

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| | U3:4 | U3:3B | | | | | |
| | | U3:4A | | | | | |
| | | U3:4B | U3:3 | U3:3 | U4:3 | U4:3 | U4:3 |
| | | U3:5A | | | | | |
| | | U3:5B | | | | | |
| | | U3:6 | | | | | |
| | | | U3:4 | U3:4 | | | |
| | | | U3:5 | U3:5 | | | |
| NUMATMPT | | | | | | | |
| | | | UAT1-8 | UAT1-8 | UAT1-8 | UAT1-8 | UAT1-8 |
| MO1-4 | U(1-8):A1 | U(1-8)A:A | U(1-8):AM | U(1-8):AM | U(1-8):AM | U(1-8):AM | U(1-8):AMO |
| DA1-4 | U(1-8):A2 | U(1-8)A:B | U(1-8):AD | U(1-8):AD | U(1-8):AD | U(1-8):AD | U(1-8):ADT |
| YR1-4 | | | | | | | |
| | U(1-8):B | U(1-8)B | U(1-8):BD | U(1-8):BD | U(1-8):BD | U(1-8):BD | U(1-8):BDA |
| TIME1-4 | U(1-8):C1 | U(1-8)C:A | U(1-8):C2 | U(1-8):C2 | U(1-8):CH | U(1-8):CH | U(1-8):CHR |
| | U(1-8):C2 | U(1-8)C:B | U(1-8):C3 | U(1-8):C3 | U(1-8):CM | U(1-8):CM | U(1-8):CMN |
| AMPM1-4 | U(1-8):C3 | U(1-8)C:C | U(1-8):CPM | U(1-8):CPM | U(1-8):CPM | U(1-8):CPM | U(1-8):CAP |
| | U(1-8):D | U(1-8)D | U(1-8):DPT | U(1-8):DPT | U(1-8):DPT | U(1-8):DPT | U(1-8):DPT |
| STAT1-4 | U(1-8):E | U(1-8)E | U(1-8):E | U(1-8):E | U(1-8):E | U(1-8):E | U(1-8):E |
| | | | U(1-8):G | U(1-8):G | U(1-8):G | U(1-8):G | U(1-8):G |

Validation Form

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | VLINID | VLINID | VLIIDA-B | VLIIDA-B | VLINT | VLINT | VLINT |
| TVLEMPID<br>MHVLEMPI<br>RVLEMPID | VLVID | VLVID | VLVIDA-B | VLVIDA-B | VLVAL | VLVAL | VLVAL |
| | | | | | VLSS | VLSS | VLSS |
| TVLSTATU<br>MHVLSTAT<br>RVLSTATU | VLSTAT:2 | VLSTAT:2 | VLFS | VLFS | VLFS | VLFS | VLFS |
| | | | | | VLA:1-8 | VLA:1-8 | VLA:1-7<br>VLFA |
| | VLCONT | VLCONT | VLT1-10 | VLT1-10 | VLTY:1-8 | VLTY:1-8 | VLTY:1-7<br>VLFTY |
| TVLMONTH<br>MHVLMONT<br>RVLMNTH | VL:M | VLD:M | VLM1-10 | VLM1-10 | VLMO:1-8 | VLMO:1-8 | VLMO:1-7<br>VLFMO |
| TVLDAY<br>MHVLDAY<br>RVLDAY | VL:D | VLD:D | VLD1-10 | VLD1-10 | VLD:1-8 | VLD:1-8 | VLD:1-7<br>VLFDA |
| TVLYR<br>MHVLYEAR<br>RVLYEAR | VL:Y | VLD:Y | | | | | |
| | VLHRBG | VLHRBG | | | VL1:HR | VL1:HR | VL1:HR |
| | VLMNBG | VLMNBG | | | VL1:MN | VL1:MN | VL1:MN |
| | VLAPBG | VLAMPM | | | VL1:AP | VL1:AP | VL1:AP |
| | | | | | VL2 | VL2 | VL2 |
| | | | | | | | VL3 |
| | | | | | | | VL4 |
| | | | | | VL3 | VL3 | VL5 |
| | | | | | | | VL5A |
| | | | | | VL4 | VL4 | |
| | VLSTAT:1 | | VL1 | VL1 | VL5 | VL5 | VL6 |
| | | | VL2A | VL2A | | | |
| TVLQ1<br>MHVLQ1<br>RVLQ1 | VL1 | | VL2B | VL2B | VL6 | VL6 | VL7 |
| | | | VL3 | VL3 | VL7 | VL7 | VL8 |
| | | | VL4 | VL4 | VL8 | VL8 | VL9 |
| | | | VL4A | VL4A | VL8A | VL8A | VL9:A |
| | | | VL4A1 | VL4A1 | VL8A1 | VL8A1 | VL9A1 |
| | | | VL4B | VL4B | VL8B | VL8B | VL9:B |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TVLQ2<br>MHVLQ2<br>RVLQ2 | VL2 | | VL5 | VL5 | VL9 | VL9 | VL10 |
| | | | VL5A | VL5A | VL9A | VL9A | VL10:A |
| TVLQ3<br>MHVLQ3<br>RVLQ3 | | | | | | | |
| | | VL1:1 | | | | | |
| | VL3 | VL1:2 | VL6 | VL6 | | | |
| | | | VL6A | VL6A | | | |
| | | VL1:A | | | | | |
| | | VL2:1 | | | | | |
| | VL4 | VL2:2 | VL7 | VL7 | | | |
| | | | VL7A | VL7A | | | |
| | | VL2:A | | | | | |
| | | VL3:1 | | | | | |
| | VL5 | VL3:2 | VL8 | VL8 | | | |
| | | | VL8A | VL8A | | | |
| | | VL3:A | | | | | |
| | | VL4:1 | | | | | |
| | VL5A | VL4:2 | VL9 | VL9 | | | |
| | | | VL9A | VL9A | | | |
| | | VL4:A | | | | | |
| TVLQ4A<br>MHVLQ4A<br>RVLQ4A | VL6:A | | | | | | |
| TVLQ4B<br>MHVLQ4B<br>RVLQ4B | VL6:B | | | | | | |
| TVLQ4C<br>MHVLQ4C<br>RVLQ4C | VL6:C | | | | | | |
| TVLQ4D<br>MHVLQ4D<br>RVLQ4D | VL6:D | | | | | | |
| TVLQ4E<br>MHVLQ4E<br>RVLQ4E | VL6:E | | | | | | |
| TVLQ4F<br>MHVLQ4F<br>RVLQ4F | VL6:F | | | | | | |
| TVLQ4G<br>MHVLQ4G<br>RVLQ4G | VL6:G | | | | | | |
| TVLQ5A<br>MHVLQ5A<br>RVLQ5A | VL7:A | | | | | | |
| TVLQ5B<br>MHVLQ5B<br>RVLQ5B | VL7:B | VL5:1 | VL10 | VL10 | | | |
| | | VL5:2 | VL10A | VL10A | | | |
| | | VL6:1-2 | | | | | |
| | | VL7:1-2 | | | | | |
| | | | VL11 | VL11 | | | |
| | | | VL11A | VL11A | | | |
| TVLQ5C1<br>MHVLQ5I<br>RVLQ5C | VL7:C1 | | | | | | |
| TVLQ5C2<br>MHVLQ5K | VL7:C2 | | | | | | |
| TVLQ5D1<br>MHVLQ5J<br>RVLQ5D | VL7:D1 | VL8:1 | VL12 | VL12 | | | |
| TVLQ5D2<br>MHVLQ5L | VL7:D2 | | | | | | |
| | | VL8:2 | VL12A | VL12A | | | |
| TVLQ5E<br>MHVLQ5C<br>RVLQ5E | VL7:E | | | | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TVLQ5F<br>MHVLQ5D<br>RVLQ5F | VL7:F | | | | | | |
| TVLQ5G<br>MHVLQ5E<br>RVLQ5G | VL7:G | | | | | | |
| | | | VL13 | VL13 | | | |
| | | | VL13A | VL13A | | | |
| TVLQ5I<br>MHVLQ5G<br>RVLQ5I | VL7:I | | VL14 | VL14 | | | |
| TVLQ5J<br>MHVLQ5H<br>RVLQ5J | VL7:J | | | | | | |
| | | | VL14A | VL14A | | | |
| | | VL9:1-2 | | | | | |
| TVLQ5H<br>MHVLQ5F<br>RVLQ5H | VL7:H | VL10:1 | VL15 | VL15 | | | |
| | | VL10:2 | VL15A | VL15A | | | |
| | | | VL16 | VL16 | | | |
| | | | VL16A | VL16A | | | |
| | | | VL17M | VL17M | | | |
| | | | VL17Y | VL17Y | | | |
| | | | VL17A | VL17A | | | |
| | | VL11:1 | VL18 | VL18 | | | |
| | | VL11:2 | VL18A | VL18A | | | |
| | | VL12:1 | VL19 | VL19 | | | |
| | | VL12:2 | VL19A | VL19A | | | |
| | | VL13:1-2 | | | | | |
| | | VL14:1-2 | | | | | |
| | | VL15 | VL20 | VL20 | | | |
| | | VL16 | VL21 | VL21 | VL20 | VL20 | VL21 |
| | | | | | VL10:A-E | VL10:A-E | VL11:A-D |
| TVLQ7A<br>MHVLQ7A<br>RVLQ7A | VL9:A | VL18:A | VL23:1 | VL23:1 | VL11:A | VL11:A | VL12:A |
| TVLQ7B<br>MHVLQ7B<br>RVLQ7B | VL9:B | VL18:B | VL23:2 | VL23:2 | VL11:B | VL11:B | VL12:B |
| TVLQ7C<br>MHVLQ7C<br>RVLQ7C | VL9:C | VL18:C | VL23:3 | VL23:3 | VL11:C | VL11:C | VL12:C |
| TVLQ7D<br>MHVLQ7D<br>RVLQ7D | VL9:D | VL18:D | VL23:4 | VL23:4 | VL11:D | VL11:D | VL12:D |
| TVLQ7E<br>MHVLQ7E<br>RVLQ7E | VL9:E | VL18:E | VL23:5 | VL23:5 | VL11:E | VL11:E | VL12:E |
| TVLQ7F<br>MHVLQ7F<br>RVLQ7F | VL9:F | VL18:F | VL23:6 | VL23:6 | VL11:F | VL11:F | VL12:F |
| TVLQ7G<br>MHVLQ7G<br>RVLQ7G | VL9:G | VL18:G | VL23:7 | VL23:7 | VL11:G | VL11:G | VL12:G |
| | | | VL23:8 | VL23:8 | VL11:H | VL11:H | VL12:H |
| | | | | | VL11:I | VL11:I | VL12:I |
| TVLQ8<br>MHVLQ8<br>RVLQ8 | VL10 | VL19 | VL24 | VL24 | VL12 | VL12 | VL13 |
| | | | | | VL13 | VL13 | VL14 |
| | VL11 | VL20 | VL25 | VL25 | VL14 | VL14 | VL15 |
| | VL12 | VL21 | VL26 | VL26 | VL15 | VL15 | VL16 |
| | | | | | VL17 | VL17 | VL18 |
| | | | | | VL18 | VL18 | VL19 |
| | | | | | VL19:A-D | VL19:A-D | VL20:A-D |
| | | | | | VL21:HR | VL21:HR | VL22:HR |
| | | | | | VL21:MN | VL21:MN | VL22:MN |
| | | | | | VL21:AP | VL21:AP | VL22:AP |

Refusal/Breakoff Form

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TRSTAT | RCONT:A | RCONT:A | ROU1 | ROU1 | RCQ1 | RCQ1 | RCQ1 |
| | RCONT:B | RCONT:B | ROU2 | ROU2 | | | |
| | | RCONT:C | ROU3 | ROU3 | RCQ2 | RCQ2 | RCQ2 |
| | | | | | RCQ3 | RCQ3 | RCQ3 |
| TR12A:1 | R12:A1 | R12:A1 | R1 | R1 | R1:1-3 | R1:1-3 | R1:1-2 |
| TR27A:1 | R30:A1 | R30:A1 | | | | | |
| | | | R1B1 | R1B1 | R1C:1-3 | R1C:1-3 | R1C:1-2 |
| | | | R1B2 | R1B2 | | | |
| | | | R1B3 | R1B3 | | | |
| | | | R1B4 | R1B4 | | | |
| | | | R1B8 | R1B8 | | | |
| TR12B:1 | R12:B1 | R12:B1 | R1C | R1C | R1A:1-3 | R1A:1-3 | R1A:1-2 |
| TR27B:1 | R30:B1 | R30:B1 | | | | | |
| TR12C:1 | R12:C1 | R12:C1 | R1D | R1D | R1B:1-3 | R1B:1-3 | R1B:1-2 |
| TR27C:1 | R30:C1 | R30:C1 | | | | | |
| | | | | | R1D:1-3 | R1D:1-3 | R1D:1-2 |
| TR12A:2 | R12:A2 | R12:A2 | R2 | R2 | R2:1-3 | R2:1-3 | R2:1-2 |
| TR27A:2 | R30:A2 | R30:A2 | | | | | |
| | | | R2B1 | R2B1 | R2C:1-3 | R2C:1-3 | R2C:1-2 |
| | | | R2B2 | R2B2 | | | |
| | | | R2B3 | R2B3 | | | |
| | | | R2B4 | R2B4 | | | |
| | | | R2B8 | R2B8 | | | |
| TR12B:2 | R12:B2 | R12:B2 | R2C | R2C | R2A:1-3 | R2A:1-3 | R2A:1-2 |
| TR27B:2 | R30:B2 | R30:B2 | | | | | |
| TR12C:2 | R12:C2 | R12:C2 | R2D | R2D | R2B:1-3 | R2B:1-3 | R2B:1-2 |
| TR27C:2 | R30:C2 | R30:C2 | | | | | |
| | | | | | R2D:1-3 | R2D:1-3 | R2D:1-2 |
| | | | | | R3:1-3 | R3:1-3 | R3:1-2 |
| TR6:1 | R6:A | R6:A | R4:1 | R4:1 | R4A:1-3 | R4A:1-3 | R4A:1-2 |
| TR21:1 | R24:A | R24:A | R22:1 | R22:1 | | | |
| TR6:2-3 | | | | | | | |
| TR21:2-3 | | | | | | | |
| TR6:4 | R6:B | R6:B | R4:2 | R4:2 | R4B:1-3 | R4B:1-3 | R4B:1-2 |
| TR21:4 | R24:B | R24:B | R22:2 | R22:2 | | | |
| TR6:5 | R6:C | R6:C | R4:3 | R4:3 | R4D:1-3 | R4D:1-3 | R4D:1-2 |
| TR21:5 | R24:C | R24:C | R22:3 | R22:3 | | | |
| TR6:6 | R6:D | R6:D | R4:4 | R4:4 | R4F:1-3 | R4F:1-3 | R4F:1-2 |
| TR21:6 | R24:D | R24:D | R22:4 | R22:4 | | | |
| TR6:7 | R6:E | R6:E | R4:5 | R4:5 | R4G:1-3 | R4G:1-3 | R4G:1-2 |
| TR21:7 | R24:E | R24:E | R22:5 | R22:5 | | | |
| TR6:8 | R6:F | R6:F | R4:6 | R4:6 | R4I:1-3 | R4I:1-3 | R4I:1-2 |
| TR21:8 | R24:F | R24:F | R22:6 | R22:6 | | | |
| TR6:9 | R6:G | R6:G | R4:7 | R4:7 | R4J:1-3 | R4J:1-3 | R4J:1-2 |
| TR21:9 | R24:G | R24:G | R22:7 | R22:7 | | | |
| TR6:10 | R6:H | R6:H | R4:8 | R4:8 | R4H:1-3 | R4H:1-3 | R4H:1-2 |
| TR21:10 | R24:H | R24:H | R22:8 | R22:8 | | | |
| TR6:11 | R6:I | R6:I | R4:9 | R4:9 | R4C:1-3 | R4C:1-3 | R4C:1-2 |
| TR21:11 | R24:I | R24:I | R22:9 | R22:9 | | | |
| TR6:12 | R6:J | R6:J | R4:10 | R4:10 | R4E:1-3 | R4E:1-3 | R4E:1-2 |
| TR21:12 | R24:J | R24:J | R22:10 | R22:10 | | | |
| TR6:13 | R6:K | R6:K | R4:88 | R4:88 | R4N:1-3 | R4N:1-3 | R4N:1-2 |
| TR21:13 | R24:K | R24:K | R22:88 | R22:88 | | | |
| TR6:14 | R6:L | R6:L | R4:99 | R4:99 | R4O:1-3 | R4O:1-3 | R4O:1-2 |
| TR21:14 | R24:L | R24:L | R22:99 | R22:99 | | | |
| | | | | | R4K:1-3 | R4K:1-3 | R4K:1-2 |
| | | | | | R4L:1-3 | R4L:1-3 | R4L:1-2 |
| | | | | | R4M:1-3 | R4M:1-3 | R4M:1-2 |
| TR7 | R7 | R7 | R5 | R5 | R5:1-3 | R5:1-3 | R5:1-2 |
| TR22 | R25 | R25 | R23 | R23 | | | |
| TR9:1 | R9:A | R9:A | R6:1 | R6:1 | R6A:1-3 | R6A:1-3 | R6A:1-2 |
| TR24:1 | R27:A | R27:A | R24:1 | R24:1 | | | |
| TR9:2 | R9:B | R9:B | R6:2 | R6:2 | R6B:1-3 | R6B:1-3 | R6B:1-2 |
| TR24:2 | R27:B | R27:B | R24:2 | R24:2 | | | |
| | | | | | R6C:1-3 | R6C:1-3 | R6C:1-2 |
| TR9:3 | R9:C | R9:C | R6:3 | R6:3 | R6D:1-3 | R6D:1-3 | R6D:1-2 |
| TR24:3 | R27:C | R27:C | R24:3 | R24:3 | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TR9:4 | R9:D | R9:D | R6:4 | R6:4 | R6E:1-3 | R6E:1-3 | R6E:1-2 |
| TR24:4 | R27:D | R27:D | R24:4 | R24:4 | | | |
| | R9:E | R9:E | R6:5 | R6:5 | R6H:1-3 | R6H:1-3 | R6H:1-2 |
| | R27:E | R27:E | R24:5 | R24:5 | | | |
| TR9:5 | R9:F | R9:F | R6:6 | R6:6 | R6F:1-3 | R6F:1-3 | R6F:1-2 |
| TR24:5 | R27:F | R27:F | R24:6 | R24:6 | | | |
| TR9:6 | R9:G | R9:G | R6:7 | R6:7 | R6G:1-3 | R6G:1-3 | R6G:1-2 |
| TR24:6 | R27:G | R27:G | R24:7 | R24:7 | | | |
| TR9:7 | R9:H | R9:H | R6:8 | R6:8 | R6I:1-3 | R6I:1-3 | R6I:1-2 |
| TR24:7 | R27:H | R27:H | R24:8 | R24:8 | | | |
| TR9:8 | R9:I | R9:I | R6:9 | R6:9 | R6J:1-3 | R6J:1-3 | R6J:1-2 |
| TR24:8 | R27:I | R27:I | R24:9 | R24:9 | | | |
| | | | | | R6K:1-3 | R6K:1-3 | R6K:1-2 |
| TR10 | R10 | R10 | R7 | R7 | R7:1-3 | R7:1-3 | R7:1-2 |
| TR25 | R28 | R28 | R25 | R25 | | | |
| | | | | | R9:1-3 | R9:1-3 | R9:1-2 |
| | | | | | R10M:1-3 | R10M:1-3 | R10M:1-2 |
| | | | | | R10Q:1-3 | R10Q:1-3 | R10Q:1-2 |
| | | | | | R10L:1-3 | R10L:1-3 | R10L:1-2 |
| | | | | | R10S:1-3 | R10S:1-3 | R10S:1-2 |
| TR1 | R1 | R1 | R9 | R9 | R12:1-3 | R12:1-3 | R12:1-2 |
| TR16 | R19 | R19 | R27 | R27 | | | |
| TR2 | R2 | R2 | R10 | R10 | R13:1-3 | R13:1-3 | R13:1-2 |
| TR17 | R20 | R20 | R28 | R28 | | | |
| TR3 | R3 | R3 | R11 | R11 | R14:1-3 | R14:1-3 | R14:1-2 |
| TR18 | R21 | R21 | R29 | R29 | | | |
| TR4 | R4 | R4 | R12 | R12 | R15:1-3 | R15:1-3 | R15:1-2 |
| TR19 | R22 | R22 | R30 | R30 | | | |
| TR5 | R5 | R5 | R13 | R13 | R11:1-3 | R11:1-3 | R11:1-2 |
| TR20 | R23 | R23 | R31 | R31 | | | |
| TR13 | R13 | R13 | R14 | R14 | | | |
| TR28 | R31 | R31 | R32 | R32 | | | |
| | R14 | R14 | | | | | |
| | R15 | R15 | | | | | |
| | R16 | R16 | | | | | |
| TR14A | R17 | R17 | R15 | R15 | R16:1-3 | R16:1-3 | R16:1-2 |
| TR14B | | | | | | | |
| TR15A | R18:A | R18:A | R16A | R16A | R17A:1-3 | R17A:1-3 | R17A:1-2 |
| TR15B | R18:B | R18:B | R16B | R16B | R17B:1-3 | R17B:1-3 | R17B:1-2 |
| | | | | | R17C:1-3 | R17C:1-3 | R17C:1-2 |
| TR(1-2)MO | R:M1 | RD:M1-2 | R17M | R17M | R19M:1-3 | R19M:1-3 | R19M:1-2 |
| | RM:2 | | R33M | R33M | | | |
| TR(1-2)DA | R:D1 | RD:D1-2 | R17D | R17D | R19D:1-3 | R19D:1-3 | R19D:1-2 |
| | RD:2 | | R33D | R33D | | | |
| TR(1-2)YR | R:Y1 | RD:Y1-2 | | | | | |
| | RY:2 | | | | | | |
| | RHR:1-2 | RHREN:1-2 | R18HR | R18HR | R20HR:1-3 | R20HR:1-3 | R20HR:1-2 |
| TR1TIME | | | R34HR | R34HR | | | |
| TR2TIME | RMN:1-2 | RMNEN:1-2 | R18MN | R18MN | R20MN:1-3 | R20MN:1-3 | R20MN:1-2 |
| | | | R34MN | R34MN | | | |
| TR(1-2)AMPM | RAP:1-2 | RAPEN:1-2 | R18AP | R18AP | R20AP:1-3 | R20AP:1-3 | R20AP:1-2 |
| | | | R34AP | R34AP | | | |
| | | RINID:1-2A | R19B | R19B | | | |
| TR(1-2)INID | RID:1-2 | | R35B | R35B | R21:1-3 | R21:1-3 | R21:1-3 |
| | | RINID:1-2B | | | | | |
| | | | R20 | R20 | | | |
| | | R32 | R36 | R36 | | | |
| | | R33 | R37 | R37 | | | |
| | | R34:A | R38A | R38A | | | |
| | | R34:B | R38B | R38B | | | |
| | | R34:C | R38C | R38C | | | |
| | | R35 | R39 | R39 | | | |
| | | R37:A-C1 | R41:1A-C | R41:1A-C | | | |
| | | R37:A-C2 | R41:2A-C | R41:2A-C | | | |
| | | R38 | R42 | R42 | | | |
| | | R39 | | | | | |
| | | R40 | | | | | |
| | | R41 | | | | | |
| | | R42 | R43 | R43 | | | |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | R44A-B | R44A-B | | | |
| | | RD:M3 | R45M | R45M | | | |
| | | RD:D3 | R45D | R45D | | | |
| | | RD:Y3 | | | | | |
| | | RHREN:3 | R46HR | R46HR | | | |
| | | RMNEN:3 | R46MN | R46MN | | | |
| | | RAPEN:3 | R46AP | R46AP | | | |
| | | RINID:3A } | R47B | R47B | | | |
| | | RINID:3B } | | | | | |

Data Retrieval Form

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | | | DRIID | DRIID | DRIID |
| | | | | | DRDID:1-2 | DRDID:1-2 | DRDID:1-2 |
| | | | | | | | DRRC |
| | | | | | DRA:1-8 | DRA:1-8 | { DRA:1-7 |
| | | | | | | | { DRFA |
| | | | | | DRMO:1-8 | DRMO:1-8 | { DRMO:1-7 |
| | | | | | | | { DRFMO |
| | | | | | DRDA:1-8 | DRDA:1-8 | { DRDA:1-7 |
| | | | | | | | { DRFDA |
| | | | | | DRTY:1-8 | DRTY:1-8 | { DRTY:1-7 |
| | | | | | | | { DRFTY |
| | | | | | DR1:HR | DR1:HR | DR1:HR |
| | | | | | DR1:MN | DR1:MN | DR1:MN |
| | | | | | DR1:AP | DR1:AP | DR1:AP |
| | | | | | | | DR2 |
| | | | | | | | DR3 |
| | | | | | DR3:1-5 | DR3:1-5 | |
| | | | | | | | DR4:1-4 |
| | | | | | DR4 | DR4 | DR5 |
| | | | | | | | DR5A |
| | | | | | DR5 | DR5 | |
| | | | | | DR6:1-9 | DR6:1-9 | DR6:1-9 |
| | | | | | DR7 | DR7 | DR7 |
| | | | | | DR8 | DR8 | DR8 |
| | | | | | DR9:HR | DR9:HR | DR9:HR |
| | | | | | DR9:MN | DR9:MN | DR9:MN |
| | | | | | DR9:AP | DR9:AP | DR9:AP |

Vacancy Form

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TVSTAT | VCCONT | VCCONT | | | | | |
| TV1 | VC2 | VC1 | V1 | V1 | V1 | V1 | V1 |
| TV2 | VC1 | VC2 | | | | | |
| TV3:1-3 | | | | | | | |
| TV4 | VC3 | VC3 | V2 | V2 | V2 | V2 | V2 |
| | VC4 | VC4 | V3 | V3 | V3 | V3 | V3 |
| | VC5 | VC5 | V4 | V4 | V4 | V4 | V4 |
| | VC6 | VC6 | V5 | V5 | V5 | V5 | V5 |
| | VC7 | VC7 | V6 | V6 | V6 | V6 | V6 |
| | VC8 | VC8 | V7 | V7 | V7 | V7 | V7 |
| | VC9:A-B | VC9:A-B | V8A-B | V8A-B | V8A-B | V8A-B | V8A-B |
| | VC9A | VC10 | V9 | V9 | V9 | V9 | V9 |
| | VC11:A | VC11:A | V10:1 | V10:11 | V10:1 | V10:1 | V10:1 |
| | VC11:B | VC11:B | | | | | |
| | VC11:C | VC11:C | V10:2 | V10:2 | V10:2 | V10:2 | V10:2 |
| | | | | | V10:3 | V10:3 | V10:3 |
| | VC11:D | VC11:D | V10:8 | V10:3 | V10:P | V10:P | V10:P |
| | VC10 | VC12 | V11 | V11 | V11 | V11 | V11 |
| | VC12 | VC13 | V12 | V12 | V12 | V12 | V12 |

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| TVINID | VCINID | VCINID:A<br>VCINID:B | V14B | V14B | V14 | V14 | V14 |
| TVMO | VCDAT:M | VCD:M | V15M | V15M | V15:M | V15:M | V15:M |
| TVDA | VCDAT:D | VCD:D | V15D | V15D | V15:D | V15:D | V15:D |
| TVYR | VCDAT:Y | VCD:Y | | | | | |
| TVTIME | VCHRBG | VCHREN | V16HR | V16HR | V16:HR | V16:HR | V16:HR |
| | VCMNBG | VCMNEN | V16MN | V16MN | V16:MN | V16:MN | V16:MN |
| TVAMPM | VCAPBG | VCAPEN | V16AP | V16AP | V16:AP | V16:AP | V16:AP |

Noninterview Form*

| TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|
| | | | N1 | N1 | | | |
| | | | N1B:1-8 | N1B:1-8 | | | |
| | | | N1C | N1C | | | |
| | | | N1D | N1D | | | |
| | | | N2 | N2 | | | |
| | | | N2B:1-8 | N2B:1-8 | | | |
| | | | N2C | N2C | | | |
| | | | N2D | N2D | | | |
| | | | N3A | N3A | | | |
| | | | N3B | N3B | | | |

*Noninterview questions are incorporated into the refusal/breakoff form for TH23, TH14, and TH24.

# RESIDENTIAL BUILDING SURVEY INDEX

Modules A and B

| RB11* | RB21 | RB12** | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| | | | | | AID | AID | AID |
| | | | | | ADAT:M | ADAT:M | ADAT:M |
| | | | | | ADAT:D | ADAT:D | ADAT:D |
| | | | | | ADAT:Y | ADAT:Y | ADAT:Y |
| | ASTAT:1 | ASTAT:PS | ASTAT:PS | ASTAT:PS | AMS1 | AMS1 | AMS1 |
| | ABLDG:2 | ABLDG:2 | ABLDG:2 | ABLDG:2 | | | |
| | | | | | AOB | AOB | AOB |
| HRBG | AHRBG | AHRBG | AHRBG | AHRBG | AHR1 | AHR1 | AHR1 |
| MNBG | AMNBG | AMNBG | AMNBG | AMNBG | AMN1 | AMN1 | AMN1 |
| APBG | AAPBG | AAPBG | AAPBG | AAPBG | AAP1 | AAP1 | AAP1 |
| | A1 | A1 | A1 | A1 | | | |
| | A2 | A2 | A2 | A2 | | | |
| | A3 | A3 | A3 | A3 | | | |
| | A4 | A4 | A4 | A4 | A1 | A1 | A1 |
| | A5 | A5 | A5 | A5 | A2 | A2 | A2 |
| | A6:A-E | A6A-E | A6A-E | A6A-E | A3A-E | A3A-E | A3A |
| | A7 | A7 | A7 | A7 | A4 | A4 | A4 |
| R24:N | A8:A-F | A8A-F | A8A-F | A8A-F | A5A-F | A5A-F | A5A-F |
| | A9:A | A9A | A9A | A9A | A6A | A6A | A7A |
| | A9:B | A9B | A9B | A9B | A6B | A6B | A7B |
| R1 | A9:C | A9C | A9C | A9C | A6C | A6C | A7C |
| | A9:D | A9D | A9D | A9D | A6D | A6D | A7D |
| | A9:E | A9E | A9E | A9E | A6E:1 | A6E:1 | A7E:1 |
| | A9:F | A9F | A9F | A9F | A6E:2 | A6E:2 | A7E:2 |
| R62 | A10 | A10 | A10 | A10 | A7 | A7 | A6 |
| | A11 | A11 | A11 | A11 | A8 | A8 | A8 |
| | A12:A | A12A | A12A | A12A | A9A | A9A | A9A |
| | A12:B | A12B | A12B | A12B | A9B | A9B | A9B |
| | A12:C | A12C | A12C | A12C | A9C | A9C | A9C |
| | A12:D | A12D | A12D | A12D | A9D | A9D | A9D |
| | A12:E | A12E | A12E | A12E | A9E | A9E | A9E |
| | A12:F | A12F | A12F | A12F | A9F | A9F | A9F |
| | A12:G | A12G | A12G | A12G | A9G | A9G | A9G |
| | A12:H | A12H | A12H | A12H | A9H | A9H | A9H |
| | | | | | | | A9I |
| | | | | | | | A9J |
| | | | | | | | A9K |
| | | | | | | | A9L |
| | A13:A-E | A13 | A13 | A13 | A10 | A10 | A10 |
| | A14 | A14 | A14 | A14 | A21 | A21 | A12 |
| | A15 | A15 | A15 | A15 | A22 | A22 | A13 |
| | A16:A-F | A16A-F | A16A-F | A16A-F | A23A-G | A23A-G | A14A-G |
| | | | | | A24A-G | A24A-G | A15A-G |
| | A17:A-D | A17A-D | A17A-D | A17A-D | A25A-I | A25A-I | A16A-I |
| R49:A | A18:A | A18A | A18A | A18A | A11A | A11A | A11A |
| R49:B | A18:B | A18B | A18B | A18B | A11B | A11B | A11B |
| R49:C | A18:C | A18C | A18C | A18C | A11C | A11C | A11C |
| R49:D | A18:D | A18D | A18D | A18D | A11D | A11D | A11D |
| | A18:E | A18E | A18E | A18E | A11E | A11E | A11E |
| R49:E | A18:F | A18F | A18F | A18F | A11F | A11F | A11F |
| R49:F | A18:G | A18G | A18G | A18G | A11K | A11K | A11K |
| R49:G | A18:H | A18H | A18H | A18H | A11H | A11H | A11H |
| | A18:I | A18I | A18I | A18I | A11G | A11G | A11G |
| | A18:J | A18J | A18J | A18J | A11J | A11J | A11J |
| R49:H | A18:K | A18K | A18K | A18K | A11I | A11I | A11I |
| | A18:L | A18L | A18L | A18L | A11L | A11L | A11L |
| R57 | | | | | | | |
| R58:B | A19:A | A19A | A19A | A19A | A12A | A12A | A23A |

*Variables beginning with "R" begin with "Q" in the codebook.

**On RB12, each variable beginning with "A" has a counterpart variable beginning with "AA," the latter not listed here. AA variables contain the data from original observations, whereas A variables contain the presumedly more reliable data gathered when the survey was refielded.

| RB11* | RB21 | RB12** | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| R58:C | A19:B | A19B | A19B | A19B | A12B | A12B | A23B |
| R58:D | | | | | | | |
| R58:E | A19:C | A19C | A19C | A19C | A12C | A12C | A23C |
| R58:G | A19:D | A19D | A19D | A19D | A12D | A12D | A23D |
| | A19:E | A19E | A19E | A19E | A12E | A12E | A23E |
| R58:A | A19:F | A19F | A19F | A19F | A12G | A12G | A23G |
| R58:F | A19:G | A19G | A19G | A19G | A12F | A12F | A23F |
| R59:F | A20:A | A20A | A20A | A20A | A13A | A13A | A24A |
| | A20:B | A20B | A20B | A20B | A13B | A13B | A24B |
| R59:C | A20:C | A20C | A20C | A20C | A13C | A13C | A24C |
| R59:A | A20:D | A20D | A20D | A20D | A13E | A13E | A24E |
| R59:B | | | | | | | |
| R59:D | | | | | | | |
| R59:E | A20:E | A20E | A20E | A20E | A13D | A13D | A24D |
| | A21 | A21 | A21 | A21 | A14 | A14 | A25 |
| R52 | A22 | A22 | A22 | A22 | A15 | A15 | A17 |
| R54 | | | | | | | |
| R55 | A23:A-E | A23A-E | A23A-E | A23A-E | A16A-E | A16A-E | A18A-E |
| | | | | | A17 | A17 | A19 |
| | | | | | A18A-E | A18A-E | A20A-E |
| | | | | | A19A-D | A19A-D | A21A-D |
| | A24 | A24 | A24 | A24 | | | |
| R53 | A25:A | A25A | A25A | A25A | A20A | A20A | A22A |
| R50 | A25:B | A25B | A25B | A25B | A20B | A20B | A22B |
| R51 | A25:C | A25C | A25C | A25C | A20C | A20C | A22C |
| | | | | | | | A22D |
| R56 | A26 | A26 | A26 | A26 | A26 | A26 | A26 |
| | AHREN | AHREN | AHREN | AHREN | AHR2 | AHR2 | AHR2 |
| | AMNEN | AMNEN | AMNEN | AMNEN | AMN2 | AMN2 | AMN2 |
| | AAPEN | AAPEN | AAPEN | AAPEN | AAP2 | AAP2 | AAP2 |
| | ASTAT:2 | ASTAT:A | ASTAT:A | ASTAT:A | AMS2 | AMS2 | AMS2 |
| | BHRBG | BHRBG | BHRBG | BHRBG | BHR1 | BHR1 | BHR1 |
| | BMNBG | BMNBG | BMNBG | BMNBG | BMN1 | BMN1 | BMN1 |
| | BAPBG | BAPBG | BAPBG | BAPBG | BAP1 | BAP1 | BAP1 |
| | B1 | B1 | B1 | B1 | B1 | B1 | B1 |
| | B6 | B2 | B2 | B2 | B2 | B2 | B2 |
| | B5 | B3 | B3 | B3 | B3 | B3 | B3 |
| R2 | B7 | B4 | B4 | B4 | B4 | B4 | B4 |
| R3 | B8 | B5 | B5 | B5 | B5 | B5 | B5 |
| | B2 | B6 | B6 | B6 | | | |
| | B3 | B7 | B7 | B7 | | | |
| R4 | B4 | B8 | B8 | B8 | B6 | B6 | B6 |
| | B9 | B9 | B9 | B9 | B7 | B7 | B7 |
| R13 | | | | | | | |
| R15 | | | | | | | |
| R16:1-5 | | | | | | | |
| R17 | | | | | | | |
| R18 | | | | | | | |
| R19 | B10 | B10 | B10 | B10 | B8 | B8 | B8 |
| R20:1-5 | B11:1-6 | B11:1-6 | B11A-F | B11A-F | B9A-F | B9A-F | B9A-F |
| R60*** | B12:A | B12A | B12A | B12A | B10A | B10A | B11A |
| | B12:B | B12B | B12B | B12B | B10B | B10B | B11B |
| R61 | B13 | B13 | B13 | B13 | B11 | B11 | B10 |
| | B14:A-E | B14A-E | B14A-E | B14A-E | B12A-E | B12A-E | B12A-E |
| R14 | B15 | B15 | B15 | B15 | B13 | B13 | B13 |
| R21 | B16:A-L | B16A-L | B16A-L | B16A-L | B14A-L | B14A-L | B14A-L |
| R22:1-3 | | | | | | | |
| R24:D | B17:A-F | B17A-F | B17A-F | B17A-F | B15A-F | B15A-F | B15A-F |
| R25 | B18 | B18 | B18 | B18 | B16 | B16 | B16 |
| R26 | B19 | B19 | B19 | B19 | B17 | B17 | B17 |
| | B20 | B20 | B20 | B20 | B18 | B18 | B26 |
| R24:L | B21 | B21 | B21 | B21 | B19 | B19 | B27 |

*Variables beginning with "R" begin with "Q" in the codebook.

**On RB12, each variable beginning with "A" has a counterpart variable beginning with "AA," the latter not listed here. AA variables contain the data from original observations, whereas A variables contain the presumedly more reliable data gathered when the survey was refielded.

***The unit of measure for R60 is feet; for all corresponding variables, yards.

| RB11* | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| R24:E | B22:A-F | B22A-F | B22A-F | B22A-F | B20A-F | B20A-F | B19A-F |
| R24:H | B23:A-H | B23A-H | B23A-H | B23A-H | | | |
| R24:J | B24:A-H | B24A-H | B24A-H | B24A-H | | | |
| R24:F | B25:A-F | B25A-F | B25A-F | B25A-F | B21A-F | B21A-F | B20A-F |
| R24:G | B26:A-H | B26A-H | B26A-H | B26A-H | | | |
| R24:I | B27:A-H | B27A-H | B27A-H | B27A-H | | | |
| | B28:A-C | B28A-C | B28A-C | B28A-C | B22A-C | B22A-C | B28A-C |
| R23 | B29:A-K | B29A-K | B29A-K | B29A-K | B23A-J | B23A-J | B29A-J |
| R24:A | B30:A-F | B30A-F | B30A-F | B30A-F | B24A-F | B24A-F | B30A-F |
| R27 | B31 | B31 | B31 | B31 | B25 | B25 | B31 |
| R24:B | B32:A-H | B32A-H | B32A-H | B32A-H | B27A-G | B27A-G | B18A-G |
| R24:C | B33:A-H | B33A-H | B33A-H | B33A-H | B26A-GH | B26A-GH | B32A-GH |
| R35 | B34 | B34 | B34 | B34 | B28 | B28 | B21 |
| R36 | B35:A | B35A | B35A | B35A | B29A | B29A | B22A |
| R37 | B35:B | B35B | B35B | B35B | B29B | B29B | B22B |
| R38 | B35:C | B35C | B35C | B35C | B29C | B29C | B22C |
| | B36:A-E | B36A-E | B36A-E | B36A-E | | | |
| R24:K** | B37:A-E | B37A-E | B37A-E | B37A-E | B30A-E | B30A-E | B23A-E |
| R39 | B38 | B38 | B38 | B38 | B31 | B31 | B24 |
| R40 | | | | | | | |
| R42 | | | | | | | |
| R24:K** | B39:A-E | B39A-E | B39A-E | B39A-E | B32A-E | B32A-E | B25A-E |
| R28 | B58 | B40 | B40 | B40 | B33 | B33 | B33 |
| R29 | | | | | | | |
| R30 | | | | | | | |
| | B40 | B41 | B41 | B41 | B34 | B34 | B34 |
| | B41 | B42 | B42 | B42 | B35 | B35 | B35 |
| | B42 | B43 | B43 | B43 | B36 | B36 | B36 |
| | B43 | B44 | B44 | B44 | B37 | B37 | B37 |
| R31 | B44:A-B | B45A-B | B45A-B | B45A-B | B38A-B | B38A-B | B38A-B |
| | B45 | B46 | B46 | B46 | B39 | B39 | B39 |
| | B46 | B47 | B47 | B47 | B40 | B40 | B40 |
| R32 | B47:A-B | B48A-B | B48A-B | B48A-B | B41A-B | B41A-B | B41A-B |
| | B48 | B49 | B49 | B49 | B42 | B42 | B42 |
| | B49 | B50 | B50 | B50 | B43 | B43 | B43 |
| R33 | B50:A | B51A | B51A | B51A | B44A | B44A | B44A |
| R34 | | | | | | | |
| | B51 | B52 | B52 | B52 | B45 | B45 | B45 |
| R24:O** | B52 | B53 | B53 | B53 | B46 | B46 | B46 |
| | | | | | B47 | B47 | B50 |
| R41 | B53 | B54 | B54 | B54 | B48A-E | B48A-E | B51A-E |
| | | | | | B49A-E | B49A-E | B52A-E |
| | B54 | B55 | B55 | B55 | B50A-G | B50A-G | B53A-G |
| | B55 | B56 | B56 | B56 | B51 | B51 | B54 |
| | | | | | B52 | B52 | B47 |
| R24:O** | B56:A-H | B57A-H | B57A-H | B57A-H | B53A-F | B53A-F | B48A-F |
| R24:M | B57:A-H | B58A-H | B58A-H | B58A-H | B54A-GH | B54A-GH | B49A-GH |
| | B59 | B59 | B59 | B59 | B55 | B55 | B55 |
| R47 | B60 | B60 | B60 | B60 | B56 | B56 | B56 |
| R46 | B61 | B61 | B61 | B61 | B57 | B57 | B57 |
| | | | | | B58 | B58 | B58 |
| | B62 | B62 | B62 | B62 | B59 | B59 | B59 |
| | B63 | B63 | B63 | B63 | B60 | B60 | B60 |
| | | | | | B61 | B61 | B61 |
| | | | | | B62A-D | B62A-D | B62A-D |
| | | | | | B63 | B63 | B63 |
| | B64 | B64 | B64 | B64 | | | |
| | B65 | B65 | B65 | B65 | B64 | B64 | B64 |
| | B66:A-C | B66A-C | B66A-C | B66A-C | B65A-C | B65A-C | B65A-C |
| | B67:A-G | B67A-G | B67A-G | B67A-G | B66A-G | B66A-G | B66A-G |
| | B68:A-E | B68A-E | B68A-E | B68A-E | B67A-E | B67A-E | B67A-E |
| | B69 | B69 | B69 | B69 | B68 | B68 | B68 |
| R5 | B70 | B70 | B70 | B70 | B69 | B69 | B69 |
| R6 | B71 | B71 | B71 | B71 | B70 | B70 | B70 |
| R7:C | B72:1A-F | B72:1A-F | B72:1A-F | B72:1A-F | B71A-F | B71A-F | B71A-F |

*Variables beginning with "R" begin with "Q" in the codebook.

**This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| RB11* | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| R7:B | B72:2A-F | B72:2A-F | B72:2A-F | B72:2A-F | B72A-F | B72A-F | B72A-F |
| R7:A | B72:3A-F | B72:3A-F | B72:3A-F | B72:3A-F | B73A-F | B73A-F | B73A-F |
| R7:D | B72:4A-H | B72:4A-H | B72:4A-H | B72:4A-H | B74A-GH | B74A-GH | B74A-GH |
| R7:E | B72:5A-F | B72:5A-F | B72:5A-F | B72:5A-F | B75A-F | B75A-F | B75A-F |
| R7:F | B72:6A-H | B72:6A-H | B72:6A-H | B72:6A-H | B76A-F | B76A-F | B76A-F |
| R7:H | B72:7A-H | B72:7A-H | B72:7A-H | B72:7A-H | B77A-GH | B77A-GH | B77A-GH |
| | B72:8A-H | B72:8A-H | B72:8A-H | B72:8A-H | B78A-G | B78A-G | B78A-G |
| | | | | | B79 | B79 | B79 |
| R7:I | B72:9A-H | B72:9A-H | B72:9A-H | B72:9A-H | B80 | B80 | B80 |
| R7:G | B72:0A-H | B72:10A-H | B72:10A-H | B72:10A-H | B81A-GH | B81A-GH | B81A-GH |
| R8 | B73 | B73 | B73 | B73 | B84 | B84 | B84 |
| R7:J | B74 | B74 | B74 | B74 | B85 | B85 | B85 |
| R9 | | | | | | | |
| R10 | B75 | B75 | B75 | B75 | B82 | B82 | B82 |
| R11 | B76 | B76 | B76 | B76 | B83 | B83 | B83 |
| R12 | B77 | B77 | B77 | B77 | B86 | B86 | B86 |
| | B78 | B78 | B78 | B78 | B87 | B87 | B87 |
| CONT | B79 | B79 | B79 | B79 | | | |
| | B80:A-D | B80A-D | B80A-D | B80A-D | | | |
| | B81 | B81 | B81 | B81 | | | |
| R43 | B83 | B83 | B83 | B83 | B88 | B88 | B88 |
| | B84 | B84 | B84 | B84 | B89 | B89 | B89 |
| R44 | B85 | B85 | B85 | B85 | B90 | B90 | B90 |
| R45 | B86 | B86 | B86 | B86 | B91 | B91 | B91 |
| R48 | B87 | B87 | B87 | B87 | B92 | B92 | B92 |
| ENTR | B88 | B88 | B88 | B88 | B93 | B93 | B93 |
| | B89 | B89 | B89 | B89 | B94 | B94 | B94 |
| HREN | BHREN | BHREN | BHREN | BHREN | BHR2 | BHR2 | BHR2 |
| MNEN | BMNEN | BMNEN | BMNEN | BMNEN | BMN2 | BMN2 | BMN2 |
| APEN | BAPEN | BAPEN | BAPEN | BAPEN | BAP2 | BAP2 | BAP2 |
| | BMS** | BSTAT:B | BSTAT:B | BSTAT:B | BMS | BMS | BMS |

Building Record Folder

| RB11 | RB21 | RB12*** | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| CITY | | | | | | | |
| NOBL:A | | | | | | | |
| NOBL:B | | | | | | | |
| SIDN | UID:1 | UID:1 | UID:1 | UID:1 | UID:1 | UID:1 | UID:1 |
| | UID:2 | UID:2 | UID:2 | UID:2 | UID:2 | UID:2 | UID:2 |
| DMO | UDATE:M | UDATE:M | U1DATE:M | U1DATE:M | U1DAT:M | U1DAT:M | U1DAT:M |
| DDA | UDATE:D | UDATE:D | U1DATE:D | U1DATE:D | U1DAT:D | U1DAT:D | U1DAT:D |
| DYR | UDATE:Y | UDATE:Y | U1DATE:Y | U1DATE:Y | U1DAT:Y | U1DAT:Y | |
| | | | U2DATE:M | U2DATE:M | U2DAT:M | U2DAT:M | U2DAT:M |
| | | | U2DATE:D | U2DATE:D | U2DAT:D | U2DAT:D | U2DAT:D |
| | | | U2DATE:Y | U2DATE:Y | U2DAT:Y | U2DAT:Y | |
| | | | | | UOB | UOB | UOB |
| STAT | UFSC | UFSC | UFSC | UFSC | UFSC | UFSC | UFSC |
| | UCONT:1 | UCONT:1 | UCONT:1 | UCONT:1 | UCONT:1 | UCONT:1 | UCONT:1 |
| | | | UCONT:2 | UCONT:2 | | | |
| | UCONT:2 | UCONT:2 | UCONT:3 | UCONT:3 | UCONT:3 | UCONT:3 | UCONT:3 |
| | UCONT:3 | UCONT:3 | UCONT:4 | UCONT:4 | UCONT:4 | UCONT:4 | UCONT:4 |
| | UCONT:4 | UCONT:4 | UCONT:5 | UCONT:5 | UCONT:2 | UCONT:2 | UCONT:2 |
| | | | | | UCONT:5 | UCONT:5 | UCONT:5 |
| | | | | | URFS | URFS | URFS |
| | U(1-8)A1 | U(1-8)A1 | U(1-8)A1 | U(1-8)A1 | U(1-4)A | U(1-4)A | U(1-4)A |
| | | | | | U(1-4) | U(1-4)B | U(1-4)B |
| | U(1-8)A2 | U(1-8)A2 | U(1-8)A2 | U(1-8)A2 | U(1-4)C:M | U1-4)C:M | U(1-4)C:M |
| | U(1-8)A3 | U(1-8)A3 | U(1-8)A3 | U(1-8)A3 | U(1-4)C:D | U1-4)C:D | U(1-4)C:D |

*Variables beginning with "R" begin with "Q" in the codebook.

**Appears in the codebook as BSTAT.

***On RB12, each variable beginning with "U" has a counterpart variable beginning with "UU," the latter not listed here. The U variables contain data from original observations; the UU variables, data from refielded observations. Both sets of data are presumed equally reliable.

| RB11* | RB21 | RB12** | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| | U(1-8)A4 | U(1-8)A4 | U(1-8)A4 | U(1-8)A4 | | | |
| | U(1-8)B1 | U(1-8)B1 | U(1-8)B1 | U(1-8)B1 | U(1-4)D:1 | U1-4)D:1 | U(1-4)D:1 |
| | U(1-8)B2 | U(1-8)B2 | U(1-8)B2 | U(1-8)B2 | U(1-4)D:2 | U1-4)D:2 | U(1-4)D:2 |
| | U(1-8)B3 | U(1-8)B3 | U(1-8)B3 | U(1-8)B3 | U(1-4)D:3 | U1-4)D:3 | U(1-4)D:3 |
| | U(1-8)C1 | U(1-8)C1 | U(1-8)C1 | U(1-8)C1 | U(1-4)E | U(1-4)E | U(1-4)E |
| TYPE | U(1-8)D1 | U(1-8)D1 | U(1-8)D1 | U(1-8)D1 | | | |
| | U(1-8)E1 | U(1-8)E1 | U(1-8)E1 | U(1-8)E1 | U(1-4)F:1-3 | U(1-4)F:1-3 | U(1-4)F:1-4 |
| | U(1-8)F1 | U(1-8)F1 | U(1-8)F1 | U(1-8)F1 | U(1-4)H | U(1-4)H | U(1-4)H |
| | U1 | U1 | U1 | U1 | UOP5 | UOP5 | UOP5 |
| | U2:A | U2:A | U2:A | U2:A | UOP1:1 | UOP1:1 | UOP1:1 |
| | U2:B | U2:B | U2:B | U2:B | UOP1:2 | UOP1:2 | UOP1:2 |
| | U2:C | U2:C | U2:C | U2:C | UOP1:3 | UOP1:3 | UOP1:3 |
| | U2:D | U2:D | U2:D | U2:D | UOP1:4 | UOP1:4 | UOP1:4 |
| | U3:A | U3:A | U3:A | U3:A | UOP2:1 | UOP2:1 | UOP2:1 |
| R63 | U3:B | U3:B | U3:B | U3:B | UOP2:2 | UOP2:2 | UOP2:2 |
| | U3:C | U3:C | U3:C | U3:C | UOP2:3 | UOP2:3 | UOP2:3 |
| | U3:D | U3:D | U3:D | U3:D | UOP2:4 | UOP2:4 | UOP2:4 |
| | U4:A-E4 | U4:A-E4 | U4:A1-5 | U4:A1-5 | UOP3:1 | UOP3:1 | UOP3:1 |
| | U4:A-E3 | U4:A-E3 | U4:B1-5 | U4:B1-5 | UOP3:2 | UOP3:2 | UOP3:2 |
| | U4:A-E2 | U4:A-E2 | U4:C1-5 | U4:C1-5 | UOP3:3 | UOP3:3 | UOP3:3 |
| | U4:A-E1 | U4:A-E1 | U4:D1-5 | U4:D1-5 | UOP3:4 | UOP3:4 | UOP3:4 |
| | | | | | UOP4 | UOP4 | UOP4 |
| | U5 | U5 | U5 | U5 | UOP6 | UOP6 | UOP6 |

Validation Form

| RB11 | RB21 | RB12 | RB22 | RB13 | RB23*** | RB14*** | RB24*** |
|---|---|---|---|---|---|---|---|
| | | | | CSTAT:PS | VAMS1 | VAMS1 | VAMS1 |
| | | | | VLBLDG:2 | | | |
| | VLAIID | VLIID | VLIID | | | | |
| | VLAM | VLMO | VLMO | | VADAT:M | VADAT:M | VADAT:M |
| | VLAD | VLDA | VLDA | | VADAT:D | VADAT:D | VADAT:D |
| | VLAY | VLYR | VLYR | | VADAT:Y | VADAT:Y | VADAT:Y |
| | VLASTAT1 | VLSFST | VLSFST | | | | |
| | VLAHR:1 | VLHR | VLHR | | | | |
| | VLAMN:1 | VLMN | VLMN | | | | |
| | VLAAP:1 | VLAP | VLAP | | | | |
| | VLASTAT2 | VLVFST | VLVFST | | | | |
| | VLAVID | VLVID | VLVID | | VAID | VAID | VAID |
| | | | | | VAOB | VAOB | VAOB |
| | VLAHR:2 | VLAHRBG | VLAHRBG | VLCHRBG | VAHR1 | VAHR1 | VAHR1 |
| | VLAMN:2 | VLAMNBG | VLAMNBG | VLCMNBG | VAMN1 | VAMN1 | VAMN1 |
| | VLAAP:2 | VLAAPBG | VLAAPBG | VLCAPBG | VAAP1 | VAAP1 | VAAP1 |
| | VLA1 | VLA1 | VLA1 | VLC1 | | | |
| | VLA2 | VLA2 | VLA2 | VLC2 | | | |
| | VLA3 | VLA3 | VLA3 | VLC3 | | | |
| | | | | VLC4 | VA1 | VA1 | VA1 |
| | VLA4 | VLA4 | VLA4 | VLC5 | VA2 | VA2 | VA2 |
| | | | | VLC6A-E | VA3A-E | VA3A-E | VA3A-E |
| | | | | VLC7 | VA4 | VA4 | VA4 |
| | | | | VLC8A-F | VA5A-F | VA5A-F | VA5A-F |
| | | | | VLC9A-F | VA6A-E:2 | VA6A-E:2 | VA7A-E:2 |
| | | | | VLC10 | VA7 | VA7 | VA6 |
| | | | | VLC11 | VA8 | VA8 | VA8 |
| | | | | VLC12A-H | VA9A-H | VA9A-H | VA9A-H |

*Variables beginning with "R" begin with "Q" in the codebook.

**On RB12, each variable beginning with "U" has a counterpart variable beginning with "UU," the latter not listed here. The U variables contain data from original observations; the UU variables, data from refielded observations. Both sets of data are presumed equally reliable.

***In this wave, the validation was a second complete observation. Therefore, the validation variables are identical to the variables in the other modules and forms, except that the validation variable names are preceded by a "V." Here we list only the VA and VB variables validating modules A and B; we omit the VU and VR variables validating the building record folder and refusal/breakoff form, respectively. (There are no VR variables on RB24.)

| RB11 | RB21 | RB12 | RB22 | RB13 | RB23* | RB14* | RB24* |
|---|---|---|---|---|---|---|---|
| | | | | | | | VA9I-L |
| | VLA5 | VLA5 | VLA5 | VLC13 | VA10 | VA10 | VA10 |
| | VLA6 | VLA6 | VLA6 | VLC14 | VA21 | VA21 | VA12 |
| | | | | VLC15 | VA22 | VA22 | VA13 |
| | | | | VLC16A-F | VA23A-G | VA23A-G | VA14A-G |
| | | | | | VA24A-G | VA24A-G | VA15A-G |
| | | | | VLC17A-D | VA25A-I | VA25A-I | VA16A-I |
| | | | | VLC18A | VA11A | VA11A | VA11A |
| | | | | VLC18B | VA11B | VA11B | VA11B |
| | | | | VLC18C | VA11C | VA11C | VA11C |
| | | | | VLC18D | VA11D | VA11D | VA11D |
| | | | | VLC18E | VA11E | VA11E | VA11E |
| | | | | VLC18F | VA11F | VA11F | VA11F |
| | | | | VLC18G | VA11K | VA11K | VA11K |
| | | | | VLC18H | VA11H | VA11H | VA11H |
| | | | | VLC18I | VA11G | VA11G | VA11G |
| | | | | VLC18J | VA11J | VA11J | VA11J |
| | | | | VLC18K | VA11I | VA11I | VA11I |
| | | | | VLC18L | VA11L | VA11L | VA11L |
| | | | | VLC19A | VA12A | VA12A | VA23A |
| | | | | VLC19B | VA12B | VA12B | VA23B |
| | | | | VLC19C | VA12C | VA12C | VA23C |
| | | | | VLC19D | VA12D | VA12D | VA23D |
| | | | | VLC19E | VA12E | VA12E | VA23E |
| | | | | VLC19F | VA12G | VA12G | VA23G |
| | | | | VLC19G | VA12F | VA12F | VA23F |
| | | | | VLC20A | VA13A | VA13A | VA24A |
| | | | | VLC20B | VA13B | VA13B | VA24B |
| | | | | VLC20C | VA13C | VA13C | VA24C |
| | | | | VLC20D | VA13E | VA13E | VA24E |
| | | | | VLC20E | VA13D | VA13D | VA24D |
| | | | | VLC21 | VA14 | VA14 | VA25 |
| | VLA7 | VLA7 | VLA7 | VLC22 | VA15 | VA15 | VA17 |
| | VLA8:A-E | VLA8:A-E | VLA8:A-E | VLC23A-E | VA16A-E | VA16A-E | VA18A-E |
| | | | | | VA17 | VA17 | VA19 |
| | | | | | VA18A-E | VA18A-E | VA20A-E |
| | | | | | VA19A-D | VA19A-D | VA21A-D |
| | | | | VLC24 | | | |
| | VLA9:A | VLA9:A | VLA9:A | VLC25A | VA20A | VA20A | VA22A |
| | VLA9:B | VLA9:B | VLA9:B | VLC25B | VA20B | VA20B | VA22B |
| | VLA9:C | VLA9:C | VLA9:C | VLC25C | VA20C | VA20C | VA22C |
| | | | | | | | VA22D |
| | | | | VLC26 | VA26 | VA26 | VA26 |
| | | | | VLCHREN | VAHR2 | VAHR2 | VAHR2 |
| | | | | VLCMNEN | VAMN2 | VAMN2 | VAMN2 |
| | | | | VLCAPEN | VAAP2 | VAAP2 | VAAP2 |
| | | | | CSTAT:C | VAMS2 | VAMS2 | VAMS2 |
| | | | | | VBHR1 | VBHR1 | VBHR1 |
| | | | | | VBMN1 | VBMN1 | VBMN1 |
| | | | | | VBAP1 | VBAP1 | VBAP1 |
| | VLB1 | VLB1 | VLB1 | VLD1 | VB1 | VB1 | VB1 |
| | VLB2 | VLB2 | VLB2 | VLD4 | VB2 | VB2 | VB2 |
| | | | | | VB3 | VB3 | VB3 |
| | VLB3 | VLB3 | VLB3 | VDL5 | VB4 | VB4 | VB4 |
| | VLB4 | VLB4 | VLB4 | VLD6 | VB5 | VB5 | VB5 |
| | VLB5 | VLB5 | VLB5 | VLD2 | | | |
| | VLB6 | VLB6 | VLB6 | VLD3 | | | |
| | | | | | VB6 | VB6 | VB6 |
| | VLB7 | VLB7 | VLB7 | VLD7 | VB7 | VB7 | VB7 |
| | | | | | VB8 | VB8 | VB8 |
| | | | | | VB9A-F | VB9A-F | VB9A-F |
| | | | | | VB10A-B | VB10A-B | VB11A-B |
| | | | | | VB11 | VB11 | VB10 |

*In this wave, the validation was a second complete observation. Therefore, the validation variables are identical to the variables in the other modules and forms, except that the validation variable names are preceded by a "V." Here we list only the VA and VB variables validating modules A and B; we omit the VU and VR variables validating the building record folder and refusal/breakoff form, respectively. (There are no VR variables on RB24.)

| RB11 | RB21 | RB12 | RB22 | RB13 | RB23* | RB14* | RB24* |
|---|---|---|---|---|---|---|---|
| | VLB8:A-E | VLB8:A-E | VLB8:A-E | VLD8A-E | VB12A-E | VB12A-E | VB12A-E |
| | VLB9 | VLB9 | VLB9 | VLD9 | VB13 | VB13 | VB13 |
| | VLB10:A-L | VLB10:A-L | VLB10:A-L | VLD10A-L | VB14A-L | VB14A-L | VB14A-L |
| | VLB11:A-F | VLB11:A-F | VLB11:A-F | VLD11A-F | VB15A-F | VB15A-F | VB15A-F |
| | VLB12 | VLB12 | VLB12 | VLD12 | VB16 | VB16 | VB16 |
| | | | | | VB17 | VB17 | VB17 |
| | | | | | VB18 | VB18 | VB26 |
| | | | | | VB19 | VB19 | VB27 |
| | | | | | VB20A-F | VB20A-F | VB19A-F |
| | | | | | VB21A-F | VB21A-F | VB20A-F |
| | VLB13:A-C | VLB13:A-C | VLB13:A-C | VLD13A-C | VB22A-C | VB22A-C | VB28A-C |
| | | | | | VB23-26 | VB23-26 | VB29-32 |
| | | | | | VB27A-G | VB27A-G | VB18A-G |
| | | | | | VB28-32 | VB28-32 | VB21-25 |
| | VLB14 | VLB14 | VLB14 | VLD15 | VB33 | VB33 | VB33 |
| | | | | | VB34 | VB34 | VB34 |
| | VLB15 | VLB15 | VLB15 | VLD14 | VB35 | VB35 | VB35 |
| | | | | | VB36-46 | VB36-46 | VB36-46 |
| | | | | | VB47-51 | VB47-51 | VB50-54 |
| | | | | | VB52-54 | VB52-54 | VB47-49 |
| | | | | | VB55-67 | VB55-67 | VB55-67 |
| | VLB16 | VLB16 | VLB16 | VLD16 | VB68 | VB68 | VB68 |
| | VLB17 | VLB17 | VLB17 | VLD17 | VB69 | VB69 | VB69 |
| | VLB18 | VLB18 | VLB18 | VLD18 | VB70 | VB70 | VB70 |
| | VLB19:1A-F | VLB19:1A-F | VLB19:1A-F | VLD19:1A-F | VB71A-F | VB71A-F | VB71A-F |
| | VLB19:2A-F | VLB19:2A-F | VLB19:2A-F | VLD19:2A-F | VB72A-F | VB72A-F | VB72A-F |
| | | | | | VB73A-84 | VB73A-84 | VB73A-84 |
| | VLB20 | VLB20 | VLB20 | VLD20 | VB85 | VB85 | VB85 |
| | | | | | VB86-87 | VB86-87 | VB86-87 |
| | VLB21 | VLB21 | VLB21 | VLD21 | | | |
| | VLB22:A-D | VLB22:A-D | VLB22:A-D | VLD22A-D | | | |
| | VLB23 | VLB23 | VLB23 | VLD23 | | | |
| | VLB25 | VLB25 | VLB25 | VLD25 | VB88 | VB88 | VB88 |
| | VLB26 | VLB26 | VLB26 | VLD26 | VB89 | VB89 | VB89 |
| | VLB27 | VLB27 | VLB27 | VLD27 | VB90 | VB90 | VB90 |
| | | | | | VB91 | VB91 | VB91 |
| | VLB28 | VLB28 | VLB28 | VLD28 | VB92 | VB92 | VB92 |
| | VLB29 | VLB29 | VLB29 | VLD29 | VB93 | VB93 | VB93 |
| | | | | | VB94 | VB94 | VB94 |
| | VLB31:A-G | VLB31:A-G | VLB31:A-G | VLD31A-G | | | |
| | VLB32 | VLB32 | VLB32 | VLD32 | | | |
| | VLBHR | VLBHREN | VLBHREN | VLDHREN | VBHR2 | VBHR2 | VBHR2 |
| | VLBMN | VLBMNEN | VLBMNEN | VLDMNEN | VBMN2 | VBMN2 | VBMN2 |
| | VLBAP | VLBAPEN | VLBAPEN | VLDAPEN | VBAP2 | VBAP2 | VBAP2 |
| | | | | | VBMS | VBMS | VBMS |
| | | | | | | | RBPC |

Refusal/Breakoff Form

| RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| | RSTAT:1 | RREF1 | RREF1 | RREF1 | RR1 | RR1 | RR1 |
| | RSTAT:2 | RREF2 | RREF2 | RREF2 | RR2 | RR2 | RR2 |
| | | RBRK | RBRK | RBRK | RBRK | RBRK | RBRK |
| | | | | | ROBS | ROBS | ROBS |
| | | | | | R1:1-2 | R1:1-2 | R1:1-2 |
| | R2:1-2 | R1:1-2 | R1:1-2 | R1:1-2 | R9:1-2 | R9:1-2 | R9:1-2 |
| | R3:A1-2 | R2:1-2A | R2:1-2A | R2:1-2A | R2:1-2A | R2:1-2A | R2:1-2A |
| | | | | | R2:1-2B | R2:1-2B | R2:1-2B |
| | R3:B1-2 | R2:1-2B | R2:1-2B | R2:1-2B | R2:1-2C | R2:1-2C | R2:1-2C |
| | R3:C1-2 | R2:1-2C | R2:1-2C | R2:1-2C | R2:1-2F | R2:1-2F | R2:1-2F |

*In this wave, the validation was a second complete observation. Therefore, the validation variables are identical to the variables in the other modules and forms, except that the validation variable names are preceded by a "V." Here we list only the VA and VB variables validating modules A and B; we omit the VU and VR variables validating the building record folder and refusal/breakoff form, respectively. (There are no VR variables on RB24.)

| RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|
| | R3:D1-2 | R2:1-2D | R2:1-2D | R2:1-2D | R2:1-2D | R2:1-2D | R2:1-2D |
| | | | | | R2:1-2E | R2:1-2E | R2:1-2E |
| | R3:E1-2 | R2:1-2E | R2:1-2E | R2:1-2E | R2:1-2G | R2:1-2G | R2:1-2G |
| | R3:F1-2 | R2:1-2F | R2:1-2F | R2:1-2F | R2:1-2H | R2:1-2H | R2:1-2H |
| | R3:G1-2 | R2:1-2G | R2:1-2G | R2:1-2G | R2:1-2I | R2:1-2I | R2:1-2I |
| | R3:H1-2 | R2:1-2H | R2:1-2H | R2:1-2H | R2:1-2J | R2:1-2J | R2:1-2J |
| | R3:I1-2 | R2:1-2I | R2:1-2I | R2:1-2I | R2:1-2K | R2:1-2K | R2:1-2K |
| | R3:J1-2 | R2:1-2J | R2:1-2J | R2:1-2J | R2:1-2L | R2:1-2L | R2:1-2L |
| | R4:A1-2 | R3:1-2A | R3:1-2A | R3:1-2A | R4:1-2A | R4:1-2A | R4:1-2A |
| | R4:B1-2 | R3:1-2B | R3:1-2B | R3:1-2B | R4:1-2B | R4:1-2B | R4:1-2B |
| | | | | | R4:1-2C | R4:1-2C | R4:1-2C |
| | R4:C1-2 | R3:1-2C | R3:1-2C | R3:1-2C | R4:1-2D | R4:1-2D | R4:1-2D |
| | R4:D1-2 | R3:1-2D | R3:1-2D | R3:1-2D | R4:1-2E | R4:1-2E | R4:1-2E |
| | | | | | R4:1-2F | R4:1-2F | R4:1-2F |
| | | R3:1-2E | R3:1-2E | R3:1-2E | R4:1-2G | R4:1-2G | R4:1-2G |
| | R4:E1-2 | R3:1-2F | R3:1-2F | R3:1-2F | R4:1-2H | R4:1-2H | R4:1-2H |
| | R4:F1-2 | R3:1-2G | R3:1-2G | R3:1-2G | R4:1-2I | R4:1-2I | R3:1-2I |
| | | | | | R4:1-2J | R4:1-2J | R4:1-2J |
| | R20:1-2 | R5:1-2 | R5:1-2 | R5:1-2 | R16:1-2 | R16:1-2 | R16:1-2 |
| | R6:1-2 | R6:1-2 | R6:1-2 | R6:1-2 | R3:1-2 | R3:1-2 | R3:1-2 |
| | R7:1-2 | R7:1-2 | R7:1-2 | R7:1-2 | R5:1-2 | R5:1-2 | R5:1-2 |
| | R9:1-2 | | | | | | |
| | | R9:1-2A | R9:1-2A | R9:1-2A | | | |
| | | R9:1-2B | R9:1-2B | R9:1-2B | | | |
| | | R9:1-2C | R9:1-2C | R9:1-2C | | | |
| | R1:1-2 | R10:1-2 | R10:1-2 | R10:1-2 | R7:1-2 | R7:1-2 | R7:1-2 |
| | | | | | R8:1-2 | R8:1-2 | R8:1-2 |
| | R10:A1-2 | R11:1-2A | R11:1-2A | R11:1-2A | R17:1-2A | R17:1-2A | R17:1-2A |
| | R10:B1-2 | R11:1-2B | R11:1-2B | R11:1-2B | R17:1-2B | R17:1-2B | R17:1-2B |
| | R10:C1-2 | R11:1-2C | R11:1-2C | R11:1-2C | | | |
| | R11:1-2 | R12:1-2 | R12:1-2 | R12:1-2 | R11:1-2 | R11:1-2 | R11:1-2 |
| | R12:A1-2 | R13:1-2A | R13:1-2A | R13:1-2A | R12:1-2A | R12:1-2A | R12:1-2A |
| | R12:B1-2 | R13:1-2B | R13:1-2B | R13:1-2B | R12:1-2B | R12:1-2B | R12:1-2B |
| | R12:C1-2 | R13:1-2C | R13:1-2C | R13:1-2C | R12:1-2C | R12:1-2C | R12:1-2C |
| | R13:1-2 | R14:1-2 | R14:1-2 | R14:1-2 | R14:1-2 | R14:1-2 | R14:1-2 |
| | R14:1-2 | R15:1-2 | R15:1-2 | R15:1-2 | | | |
| | R15:A1-2 | R16:1-2A | R16:1-2A | R16:1-2A | R15:1-2A | R15:1-2A | R15:1-2A |
| | R15:B1-2 | R16:1-2B | R16:1-2B | R16:1-2B | R15:1-2B | R15:1-2B | R15:1-2B |
| | R15:C1-2 | R16:1-2C | R16:1-2C | R16:1-2C | R15:1-2C | R15:1-2C | R15:1-2C |
| | R16:1-2 | R17:1-2 | R17:1-2 | R17:1-2 | R20:1-2 | R20:1-2 | R20:1-2 |
| | R17:M1-2 | R18:1-2M | R18:1-2M | R18:1-2M | R18:1-2M | R18:1-2M | R18:1-2M |
| | R17:D1-2 | R18:1-2D | R18:1-2D | R18:1-2D | R18:1-2D | R18:1-2D | R18:1-2D |
| | R17:Y1-2 | R18:1-2Y | R18:1-2Y | R18:1-2Y | | | |
| | R18:H1-2 | R19:1-2A | R19:1-2A | R19:1-2A | R19:1-2H | R19:1-2H | R19:1-2H |
| | R18:M1-2 | R19:1-2B | R19:1-2B | R19:1-2B | R19:1-2M | R19:1-2M | R19:1-2M |
| | R18:A1-2 | R19:1-2C | R19:1-2C | R19:1-2C | R19:1-2B | R19:1-2B | R19:1-2B |
| | R19:1-2 | R20:1-2 | R20:1-2 | R20:1-2 | | | |

## NEIGHBORHOOD SURVEY INDEX

Many NS11 variables are bracketed with a corresponding variable prefixed by "A," as in

$$\left.\begin{array}{l}\text{NQ6}\\ \text{A6}\end{array}\right\}$$

The A variables represent expansions of the instrument to allow for multiple occurrences of the same characteristic. For example, NQ6 allowed space to describe four highways in each neighborhood; A6 provided space for eight more.

Neighborhood Local Sources Survey Index

| NS11* | NS21 | NS14 | NS24 |
|---|---|---|---|
| NSTAT | | | |
| NQ1:A-Y | | | |
| NQ2:A-Y | | | |
| NQ3:A1 | N1:A1 | | |
| NQ3:A2 | N1:A2 | N2A:1 | L1A:1 |
| NQ3:A3 | N1:A3 | N2A:2 | L1A:2 |
| NQ3:B1 | N1:B1 | | |
| NQ3:B2 | N1:B2 | N2B:1 | L1B:1 |
| NQ3:B3 | N1:B3 | N2B:2 | L1B:2 |
| NQ3:C1 | N1:C1 | | |
| NQ3:C2 | N1:C2 | N2C:1 | L1C:1 |
| NQ3:C3 | N1:C3 | N2C:2 | L1C:2 |
| NQ3:D1 | N1:D1 | | |
| NQ3:D2 | N1:D2 | N2D:1 | L1D:1 |
| NQ3:D3 | N1:D3 | N2D:2 | L1D:2 |
| NQ3:E1 | N1:E1 | | |
| NQ3:E2 | N1:E2 | N2E:1 | L1E:1 |
| NQ3:E3 | N1:E3 | N2E:2 | L1E:2 |
| NQ3:F1 | N1:F1 | | |
| NQ3:F2 | N1:F2 | N2F:1 | L1F:1 |
| NQ3:F3 | N1:F3 | N2F:2 | L1F:2 |
| | | | L1G:1 |
| | | | L1G:2 |
| NQ3:G1 | N1:G1 | | |
| NQ3:G2 | N1:G2 | N2G:1 | L1H:1 |
| NQ3:G3 | N1:G3 | N2G:2 | L1H:2 |
| | | N2G:3 | |
| NQ3:H1 | N1:H1 | | |
| NQ3:H2 | N1:H2 | N2H:1 | L1I:1 |
| NQ3:H3 | N1:H3 | N2H:2 | L1I:2 |
| NQ3:I1 | N1:I1 | | |
| NQ3:I2 | N1:I2 | N2I:1 | L1J:1 |
| NQ3:I3 | N1:I3 | N2I:2 | L1J:2 |
| NQ3:J1 | N1:J1 | | |
| NQ3:J2 | N1:J2 | N2J:1 | L1K:1 |
| NQ3:J3 | N1:J3 | N2J:2 | L1K:2 |
| | | N2J:3 | L1K:3 |
| | | N2J:4 | L1K:4 |
| | | N2K:1 | L1L:1 |
| | | N2K:2 | L1L:2 |
| | | N2K:3 | L1L:3 |
| | | N2K:4 | L1L:4 |
| | | N2L:1 | L1M:1 |
| | | N2L:2 | L1M:2 |
| | | N2L:3 | L1M:3 |
| | | N2L:4 | L1M:4 |
| | | | L1N:1 |
| | | | L1N:2 |
| | | | L1N:3 |
| | | | L1N:4 |
| NQ3:K1 | N1:K1 | | |
| NQ3:K2 | N1:K2 | N2M:1 | L1O:1 |
| NQ3:K3 | N1:K3 | N2M:2 | L1O:2 |
| | | N2M:3 | L1O:3 |
| | | N2M:4 | L1O:4 |
| | | N2N:1 | |
| | | N2N:2 | |
| | | N2N:3 | |
| | | N2N:4 | |
| NQ3:L1 | N1:L1 | | |
| NQ3:L2 | N1:L2 | N2O:1 | L1P:1 |
| NQ3:L3 | N1:L3 | N2O:2 | L1P:2 |
| | | N2O:3 | L1P:3 |
| | | N2O:4 | L1P:4 |

*In the codebook, the questions appear without the N prefix.

| NS11* | NS21 | NS14 | NS24 |
|---|---|---|---|
| NQ3:M1 | N1:M1 | | |
| NQ3:M2 | N1:M2 | N2P:1 | L1Q:1 |
| NQ3:M3 | N1:M3 | N2P:2 | L1Q:2 |
| | | N2P:3 | L1Q:3 |
| | | N2P:4 | L1Q:4 |
| NQ3:N1 | N1:N1 | | |
| NQ3:N2 | N1:N2 | N2Q:1 | L1R:1 |
| NQ3:N3 | N1:N3 | N2Q:2 | L1R:2 |
| | | N2Q:3 | L1R:3 |
| | | N2Q:4 | L1R:4 |
| NQ3:O1 | N1:O1 | | |
| NQ3:O2 | N1:O2 | N2R:1 | L1S:1 |
| NQ3:O3 | N1:O3 | N2R:2 | L1S:2 |
| NQ3:P1 | N1:P1 | | |
| NQ3:P2 | N1:P2 | N2S:1 | L1T:1 |
| NQ3:P3 | N1:P3 | N2S:2 | L1T:2 |
| NQ3:Q1 | N1:Q1 | | |
| NQ3:Q2 | N1:Q2 | N2T:1* | L1U:1* |
| NQ3:Q3 | N1:Q3 | N2T:2* | L1U:2* |
| NQ3:R1 | N1:R1 | | |
| NQ3:R2 | N1:R2 | N2T:1* | L1U:1* |
| NQ3:R3 | N1:R3 | N2T:2* | L1U:2* |
| NQ3:S1 | N1:S1 | | |
| NQ3:S2 | N1:S2 | N2U:1 | L1V:1 |
| NQ3:S3 | N1:S3 | N2U:2 | L1V:2 |
| NQ3:T1 | N1:T1 | | |
| NQ3:T2 | N1:T2 | N2V:1 | L1W:1 |
| NQ3:T3 | N1:T3 | N2V:2 | L1W:2 |
| NQ3:U1 | N1:U1 | | |
| NQ3:U2 | N1:U2 | N2W:1 | L1X:1 |
| NQ3:U3 | N1:U3 | N2W:2 | L1X:2 |
| NQ3:V1 | N1:V1 | | |
| NQ3:V2 | N1:V2 | N2X:1 | L1Y:1 |
| NQ3:V3 | N1:V3 | N2X:2 | L1Y:2 |
| NQ3:W1 | N1:W1 | | |
| NQ3:W2 | N1:W2 | N2Y:1 | L1Z:1 |
| NQ3:W3 | N1:W3 | N2Y:2 | L1Z:2 |
| NQ3:X1 | N1:X1 | | |
| NQ3:X2 | N1:X2 | N2Z:1 | L1ZZ:1 |
| NQ3:X3 | N1:X3 | N2Z:2 | L1ZZ:2 |
| | | N2AA:1 | L1AA:1 |
| | | | L1BB:1 |
| | | N2BB:1 | L1CC:1 |
| NQ4:A-E1 | N2:A-C | | |
| NQ4:(A-E)M | N2:(A-C)CM | | |
| NQ4:(A-E)Y | N2:(A-C)CY | | |
| | N2:D | | |
| NQ5:A1 | N3:A | | |
| | | N3A:1 | |
| NQ5:A2 | N3:ACC | N3A:2 | L2A |
| NQ5:B1 | N3:B | | |
| NQ5:B2 | N3:BCC | | |
| NQ5:C1 | N3:C | | |
| NQ5:C2 | N3:CCC | N3B:2 | L2B |
| NQ5:D1 | N3:D | | |
| | | N3C:1 | |
| NQ5:D2 | N3:DCC | N3C:2 | L2C |
| NQ5:E1 | N3:E | | |
| NQ5:E2 | N3:ECC | | |
| NQ5:F1 | N3:F | | |
| | | N3D:1 | |
| NQ5:F2 | N3:FCC | N3D:2 | L2D |
| NQ5:G1 | N3:G | | |

*In the codebook, the questions appear without the N prefix.

**This variable is listed more than once in this column because its corresponding variables are not numerically adjacent.

| NS11* | NS21 | NS14 | NS24 |
|---|---|---|---|
| | | N3E:1 | |
| NQ5:G2 | N3:GCC | N3E:2 | L2E |
| NQ5:H1 | N3:H | | |
| NQ5:H2 | N3:HCC | N3F:1 | L2F |
| NQ5:I1 | N3:I | | |
| NQ5:I2 | N3:ICC | N3G:1 | L2G |
| NQ5:J1 | N3:J | | |
| NQ5:J2 | N3:JCC | N3H:1 | L2H |
| NQ5:K | N3:K | | |
| NQ5:L | N3:L | | |
| NQ6 } A6:T } | N4HW1 | N4 | L3 |
| NQ6:A1-4 } A6A:5-12 } | N4:A1-12 | | |
| NQ6:B1-4 } A6B:5-12 } | N4:B1-12 | | |
| NQ6:C1-4 } A6C:5-12 } | N4:C1-12 | | |
| NQ6:D1-4 } A6D:5-12 } | N4:D1-12 | | |
| NQ6:E1-4 } A6E:5-12 } | N4:E1-12 | | |
| NQ6:F1-4 } A6F:5-12 } | N4:F1-12 | | |
| NQ6:G1-4 } A6G:5-12 } | N4:G1-12 | | |
| NQ6:H1-4 } A6H:5-12 } | N4:H1-12 | | |
| | | N4A | L3A |
| | | N4B | |
| | | N4C | L3B |
| | | N4D | |
| | | N4E | |
| | | N4F | |
| | | N4G | L3C |
| | | N4H | L3D |
| NQ7 } A7:T } | N5AR | N5 | L4 |
| NQ7:A1-4 } A7A:5-12 } | N5:A1-16 | | |
| NQ7:B1-4 } A7B:5-12 } | N5:B1-16 | | |
| NQ7:C1-4 } A7C:5-12 } | N5:C1-16 | | |
| NQ7:D1-4 } A7D:5-12 } | N5:D1-16 | | |
| NQ7:E1-4 } A7E:5-12 } | N5:E1-16 | | |
| NQ7:F1-4 } A7F:5-12 } | N5:F1-16 | | |
| | | N5A | L4A |
| | | N5B | |
| | | N5C | L4B |
| | | N5D | |
| | | N5E | |
| | | N5F | |
| | | N5G | L4C |
| | | N5H | L4D |
| NQ8 | N6 | | |
| NQ9 | N7PH | N6:1 | |
| A9:T | N7TPH | N6:2 | L5 |
| NQ9:A1-2 } A9A:3-6 } | N7:A1-3 | N6A:1-6 | L5A:1-3 |
| NQ9:B1-2 } A9B:3-6 } | N7:B1-3 | | |

*In the codebook, the questions appear without the N prefix.

| NS11* | NS21 | NS14 | NS24 |
|---|---|---|---|
| NQ9:C1-2<br>A9C:3-6 | N7:C1-3 | N6B:1-6 | L5B:1-3 |
| NQ9:D1-2<br>A9D:3-6 | N7:D1-3 | | |
| NQ9:E1-2<br>A9E:3-6 | N7:E1-3 | | |
| NQ9:F1-2<br>A9F:3-6 | N7:F1-3 | N6C:1-6 | L5C:1-3 |
| NQ9:G1-2<br>A9G:3-6 | N7:G1-3 | N6D:1-6 | L5D:1-3 |
| NQ9:H1-2<br>A9H:3-6 | N7:H1-3 | | |
| | N7:I(1-3)M | | |
| NQ9:I1-2<br>A9I:3-6 | N7:I(1-3)Y | N6E:1-6<br>N6E(1-6):YR | L5E:1-3<br>L5E(1-3):YR |
| NQ10 | N8RR | N7 | L6 |
| NQ10:A1-4<br>A10A:5-8 | N8:A1-8 | N7A:1-8 | L6A:1-5 |
| NQ10:B(1-4)A<br>A10B1:5-8<br>A10B:N1-4 | N8:B1-8 | N7B:1-8X | L6B:1-5X |
| NQ10:B(1-4)B<br>A10B2:5-8 | N8:C1-8 | N7B:1-8N | L6B:1-5N |
| NQ10:C1-4<br>A10C:5-8 | N8:D1-8 | N7C:1-8 | L6C:1-5 |
| NQ10:D1-4<br>A10D:5-8 | N8:E1-8 | N7D:1-8 | L6D:1-5 |
| NQ10:E1-4<br>A10E:5-8 | N8:F1-8 | N7E:1-8L<br>N7E:1-8U<br>N7E:1-8O<br>N7F:1-8 | L6E:1-5L<br>L6E:1-5U<br>L6E:1-5O<br>L6F:1-5 |
| NQ11:1<br>NQ11:2<br>NQ11:3 | N9L<br>N9R<br>N9S | | L7 |
| NQ11:A1-4<br>A11A:5-10 | N9A1-10 | | L7A:1-9 |
| NQ11:B1-4<br>A11B:5-10 | N9B1-10 | | L7B:1-9 |
| NQ11:C1-4<br>A11C:5-10 | N9C1-10 | | |
| | | | L7C:1-9 |
| NQ11:D1-4<br>A11D:5-10 | N9D1-10 | | L7D:1-9 |
| NQ11:E(1-4)A<br>A11E1:5-10 | N9E(1-10):1 | | |
| | | | L7E:1-9E |
| NQ11:E(1-4)B<br>A11E2:5-10 | N9E(1-10):2 | | L7E:1-9S |
| NQ11:E(1-4)C<br>A11E3:5-10 | N9E(1-10):3 | | L7E:1-9F |
| NQ11:E(1-4)D<br>A11E4:5-10 | N9E(1-10):4 | | L7E:1-9I |
| NQ11:E(1-4)E<br>A11E5:5-10 | N9E(1-10):5 | | L7E:1-9R |
| NQ11:E(1-4)F<br>A11E6:5-10 | N9E(1-10):6 | | L7E:1-9N |
| NQ11:E(1-4)G<br>A11E7:5-10 | N9E(1-10):7 | | L7E:1-9D |
| | N9E(1-10):8 | | L7E:1-9W |
| | N9E(1-10):9 | | L7E:1-9O |
| | N10:A1-2 | | |
| | N10:B1-2 | | |
| | N10:C1-2 | | |
| | N10:D1-2 | | |
| | N10:E1-2 | | |

*In the codebook, the questions appear without the N prefix.

| NS11* | NS21 | NS14 | NS24 |
|---|---|---|---|
| | N10:F1-2 | | |
| | N10:G1-2 | | |
| | N10:H1-2 | | |
| | N10:I1-2 | | |
| | N10:J1-2 | | |
| NQ12:A1-2 | | | |
| NQ12:B1-2 | | | |
| NQ12:C1-2 | | | |
| NQ13 | N11F | | |
| NQ13A:A-E | N11:A(A-E) | | |
| NQ13B } | N11:B | | |
| A13B:A } | | | |
| NQ13C } | N11:C | | |
| A13C:A } | | | |
| NQ14 | N12:C | | |
| | | N8 | |
| | | N8A:1-3 | |
| | | N8B:1-3 | |
| | | N8C:1-3 | |
| | | N8D:1-3 | |
| | | N8E:1-3 | |
| | | N8F:1-3 | |
| | | N8G:1-3 | |
| | | N8H:1-3 | |
| | | N8I:1-3 | |
| | | N8J:1-3 | |
| NQ14:A1 | | | |
| NQ14:B1 | | | |
| NQ14:C1 | | | |
| NQ14:A2 | N12:A | | L8A |
| NQ14:B2 | | | |
| NQ14:C2 | N12:B | | L8B |
| NQ14:A3 | | | |
| NQ14:B3 | | | |
| NQ14:C3 | | | |
| NQ14:A4 | | | |
| NQ14:B4 | | | |
| NQ14:C4 | | | |
| NQ15:A-C | | | |
| NQ15A:A | | | |
| NQ15A:B | N13:A | | |
| NQ15A:C | | | |
| NQ15A:D | | | |
| NQ15A:E | N13:B | | |
| NQ15A:F | N13:C | | |
| NQ15A:G | | | |
| | | N10(A-M):1 | |
| | | N10(A-M):2 | |
| | | N10(A-M):3 | |
| | | N10(A-M):4 | |
| | | N10(A-M):5 | |
| | | N10(A-M):6 | |
| | | N10(A-M):7 | |
| | | N10(A-M):8 | |
| | | N10(A-M):9 | |
| | | N10(N-S):1 | |
| | | N10(N-S):2 | |
| | N14(1-20):A | | L9:1-15A |
| | | | L9:1-15B |
| | N14(1-20):B | | L9:1-15C |
| | N14(1-20):C | | L9:1-15D |
| | N14(1-20):D | | L9:1-15E |
| | N14(1-20):E | | L9:1-15F |
| | | | L9G |
| | N15CD | N11 | L10 |
| | | | L10:A1 |

*In the codebook, the questions appear without the N prefix.

| NS11 | NS21 | NS14 | NS24 |
|---|---|---|---|
| | N15:A | N11C | L10:A2 |
| | | | L10:B1 |
| | N15:B | N11A-B | L10:B2 |
| | | | L10:C1 |
| | N15:C | | L10:C2 |
| | | | L10:D1 |
| | N15:D | | L10:D2 |
| | | | L10:E1 |
| | N15:E | | L10:E2 |
| | | N11D | |
| | | | L10:F1 |
| | N15:F | N11E | L10:F2 |
| | N15:G | | |
| | | N12A | |
| | | N12B | |
| | | N12C | |

Neighborhood Street Observation Survey Index

| NO11 | NO21 | NO14 | NO24 |
|---|---|---|---|
| NBE1-2 | | | |
| NCTBL1-2A | NCT:1-2A | | |
| | NCT:1-2B | | |
| | NBLK:1-2 | | |
| NCTBL1-2B | NENUM:1-2A | | |
| | NENUM:1-2B | | |
| | | PSC1-2 | |
| | | FSC1-2 | FSC |
| | | NOBS | NOBS |
| | | TIMEB | TIMEB |
| | | AMPMB | AMPMB |
| | | TIMEE | TIMEE |
| | | AMPME | AMPME |
| | | SSA | NA |
| | | SSB | NB |
| | | SSC | NC |
| | | SSD | |
| SO1 | N1 | | |
| SO2 | N2 | | |
| SO3 | N3 | | |
| SO4 | N4 | | |
| SO5 | N5 | | |
| SO6 | N6 | | |
| SO7 | N7 | | |
| SO8 | N8 | | |
| SO9 | N9 | | |
| | N10 | | |
| SO10 | N11 | | |
| SO11 | N12 | | |
| SO12 | N13 | | |
| SO13 | N14 | | |
| SO14 | N15 | | |
| SO15 | N16 | | |
| SO16 | N17 | | |
| SO17 | N18 | | |
| SO18 | N19 | | |
| | N20 | | |
| | N21 | | |
| SO19 | N22 | N7D | N7D |
| SO20 | N23 | N7E | N7E |
| SO21 | N24 | N7A | N7A |
| SO22 | N25 | N7B | N7B |
| SO23 | N26 | N7C | N7C |
| SO24 | N27 | N1A-F | N1A-F |
| SO25 | N28 | N2A-G | N2A-G |
| SO26 | N29 | N4 | N4 |

| NO11 | NO21 | NO14 | NO24 |
|---|---|---|---|
| SO27 | N30 | N5 | N5 |
| SO28 | N31 | N6 | N6 |
| SO29 | N32 | N3A-E | N3A-E |
| SO30A-B | N33:A-B | | |
| | | N8A-N | N8A-N |
| NDBVR | NDRVR | DRIV | DRIV |
| NRCDR | NRCDR | RCDR | RCDR |
| NCOMM | NCOMM | MN | MN |
| NCOMD | NCOMD | DAY | DAY |
| NCOMY | | YR | YR |

Validation Form

| NO11 | NO21 | NO14 | NO24 |
|---|---|---|---|
| VNBHDCOD | | | |
| VNBHDSEG | | | |
| VNBE1-2 | | | |
| VNCTBL1-2A | | | |
| VNCTBL1-2B | | | |
| | | NVLPSC1-2 | |
| | | NVLFSC1-2 | NVLFSC |
| | | NVLOBS | NVLOBS |
| | | NVLTIMEB | NVLTIMEB |
| | | NVLAMPMB | NVLAMPMB |
| | | NVLTIMEE | NVLTIMEE |
| | | NVLAPME | NVLAMPME |
| | | NVLA | NVLA |
| | | NVLB | NVLB |
| | | NVLC } | NVLC |
| | | NVLD } | |
| VSO1 | NVL1 | | |
| VSO2 | NVL2 | | |
| VSO3 | NVL3 | | |
| VSO4 | NVL4 | | |
| VSO5 | NVL5 | | |
| VSO6 | NVL6 | | |
| VSO7 | NVL7 | | |
| VSO8 | NVL8 | | |
| VSO9 | { NVL9 | | |
| | { NVL10 | | |
| VSO10 | NVL11 | | |
| VSO11 | NVL12 | | |
| VSO12 | NVL13 | | |
| VSO13 | NVL14 | | |
| VSO14 | NVL15 | | |
| VSO15 | NVL16 | | |
| VSO16 | NVL17 | | |
| VSO17 | NVL18 | | |
| VSO18 | { NVL19 | | |
| | { NVL20 | | |
| | NVL21 | | |
| VSO19 | NVL22 | NVL7D | NVL7D |
| VSO20 | NVL23 | NVL7E | NVL7E |
| VSO21 | NVL24 | NVL7A | NVL7A |
| VSO22 | NVL25 | NVL7B | NVL7B |
| VSO23 | NVL26 | NVL7C | NVL7C |
| VSO24 | NVL27 | NVL1A-F | NVL1A-F |
| VSO25 | NVL28 | NVL2A-G | NVL2A-G |
| VSO26 | NVL29 | NVL4 | NVL4 |
| VSO27 | NVL30 | NVL5 | NVL5 |
| VSO28 | NVL31 | NVL6 | NVL6 |
| VSO29 | NVL32 | NVL3A-E | NVL3A-E |
| VSO30A-B | NVL33:A-B | | |
| | | NVL8A-N | NVL8A-N |
| VNDBVR | NVLDRVR | NVLDRIV | NVLDRIV |
| VNRCDR | NVLRCDR | NVLRCDR | NVLRCDR |

| NO11 | NO21 | NO14 | NO24 |
|---|---|---|---|
| VNCOMM | NVLCOMM | NVLMN | NVLMN |
| VNCOMD | NVLCOMD | NVLDAY | NVLDAY |
| VNCOMY | | NVLYR | NVLYR |

## QUESTIONS OMITTED FROM CROSS-WAVE INDEXES

### Landlord Survey

LL11: VLLID:1, VIUPD, WAVE, VRSN, MODV, OPASS, AMODA, BMODB, CMODC, DMODD, EMODE, EJOB01-15, FMODF, GMODG, HMODH, IMODI, VSQID, VMQID, VSWV, VMWV, VSLLID, VMLLID, VSCODE, VMCODE, RQID, RWV, RLLID, RCODE

LL21: VQID:1, A5:E1, A5:I1, B24:O1, B31:1-2L, C47:G1, EJOB:1-15, F57:1-3I, H24:K1, H30:J1, H50:H1, I12:N1, I17:H1, I21:H1, I23:8B, I27:G, I31:K1, I45:Q1, I50:H1, I51:I1, J2:A13, J4:A-C, J7A:A11, J8A:A11, J12:A11, J14:A11, J15:A-G, J15:6, J18:A9, PQID:1, PSITE, PWAVE, USITE, UWAVE, VCQID:1, VLQID:1, RQID:1, VCID, VCM, VCD, VCY, VCHRBG, VCMNBG, VCAPBG, VCSTAT

LL12: K1:C, K4:C, K7A:C, K8A:C, K9A:C, K12:C, K12C:C, K14:C, K18:C, K19:C, K21:C, K23:C, K30A:C, K32A:C, K37:C, K48:C, PQID, PATP, VLQID, VLATP, RQID, RATP

LL22: LATP, LSITE, LWAVE, K5B:1, K9A:11, K17A:6, K29A:5, K36:11, K48A, POFLAG, PATP, PSITE, PWAVE, USITE, UWAVE, USECT, VLATP, VLSITE, VLWAVE, RATP, RSITE, RWAVE

LL13: LATP, LSITE, LWAVE, K5B:1, K9A:11, K17A:6, K29A:5, K36:11, K48A, POFLAG, PATP, PSITE, PWAVE, USITE, UWAVE, USECT, VLATP, VLSITE, VLWAVE, RATP, RSITE, RWAVE

LL23: LATP, K5B:1, K9B:1, K10B:1, K11B:1, K13B:1, K14B:1, K15:19, K17B:1, K29B:1, K36:11, K46, K48:9, POFLAG, PATP, VLATP, RATP, DRATP

LL14: LATP, K5B:1, K9B:1, K10B:1, K11B:1, K13B:1, K14B:1, K15:19, K17B:1, K29B:1, K36:11, K46, K48:9, VLATP, VLSITE, VLWAVE

LL24: LATP, K5B:1, K9B:1, K10B:1, K11B:1, K13B:1, K14B:1, K15:19, K17B:1, K29B:1, K36:11, K48:9, PATP, VLATP, RATP, DRATP

### Household Survey

TH11: AINID, ACOMM, ACOMD, ACOMY, AFSTA, B138:A1-2T, B138:B1-2T, B138:C1-2T, B142:A1-2M, B142:B1-2M, B142:C1-2M, B140:A1-2L, B140:B1-2L, B140:C1-2L, C130:A1-2T, C130:B1-2T, C130:C1-2T, C143:A1-2M, C143:B1-2M, C143:C1-2M, C65:A1-2L, C65:B1-2L, C65:C1-2L, G4:1-8, G41:A1-2T, G41:B1-2T, G41:C1-2T, G41:A1-2M, G41:B1-2M, G41:C1-2M, G40:A1-2L, G40:B1-2L, G40:C1-2L, TVLQID, MHVLQID, RVLQID, TRQID, TVQID, FIRST

TH21: BM39, BM53:2, BM126, CT2:BXX, CH80:N1, H2:A13, H4:A6, H7A:A11, H10:A9, H12:A11, H14:A11, H15:6, H18A:A6, H20A:6, H22A:6, VLQID, RQID, VCQID, PQID

TH12: CH91:N1, H1:CT, H4:CT, H7A:CT, H9:CT, H11:CT, H13:CT, H15:CT, H17:CT, H19:CT, H21, H22, H22A:A1-4, H23, H24:A1-4, H26:CT, H31:CT, H32:CT, H35:CT, H37A:CT, H53:CT, H61:CT, H65:CT, H68:CT, H72:CT, RVERS, VCVER, HHSTATUS, HH1-2, HHID1-2, HH4-7, HH9-12

TH22: A2:TP1-6, A2:B4D, A2:UNT, A2:ATU, A3:TP1-6, A3:B4D, A3:UNT, A3:ATU, A7:TP1-6, A7:B4D, A7:UNT, A7:ATU, A8:TP1-6, A8:B4D, A8:UNT, A8:ATU, A10:TP1-6, A10:B4D, A10:UNT, A10:ATU, A11:TP1-6, A11:B4D, A11:UNT, A11:ATU, BH23, BM39, BL90:A, G6A:1-14, H3:7C, H8A:11, H18:1-6, H18B:6, H19A:6, H20A:6, H22A:5, H23:6, H25:6, H26:6, H31A:6, H32:6, H34A:6, H41:1-4, H43:1-4, H45:1-4, H49:9, H53A:7, H56:1-5, H59:7, H60B:6, H61A:6, H63:6, H68A:6, H69A:6, H75A:5, H79A:6, H82:11, H88:4, H96:1-9, VLQID1, RQID1, VQID1, NQID1

TH13: A2:TP1-6, A2:B4D, A2:UNT, A2:ATU, A3:TP1-6, A3:B4D, A3:UNT, A3:ATU, A7:TP1-6, A7:B4D, A7:UNT, A7:ATU, A8:TP1-6, A8:B4D, A8:UNT, A8:ATU, A10:TP1-6, A10:B4D, A10:UNT, A10:ATU, A11:TP1-6, A11:B4D, A11:UNT, A11:ATU, BH23, BL90:A, G6A:1-14, H3:7C, H8A:11, H18:1-6, H18B:6, H19A:6, H20A:6, H22A:5, H23:6, H25:6, H26:6, H31A:6, H32:6, H34A:6, H41:1-4, H43:1-4, H45:1-4, H49:9, H53A:7, H56:1-5, H59:7, H60B:6, H61A:6, H63:6, H68A:6, H69A:6, H75A:5, H79A:6, H82:11, H88:4, H96:1-9, VLQID1, RQID1, VQID1, NQID1

TH23: DBLDG:1, DUNIT, H3:7, H7A:10, H8A:9, H9F:9, H10A:9, H11A:9, H12A:9, H13:16, H16:B6, H17:A6, H18:A6, H21:A5, H22:6, H24:6, H26:6, H31A:6, H33:6, H35A:6, H58:9, H70:7, H72A:6, H73A:6, H75:6, H80A:6, H81A:6, H92A:6, H95:11, H109:1-9, VLQID1, VLID2, RQID:1, DRQUID:2, VQID1

TH14: DBLDG:1, DUNIT, H3:7, H7A:10, H8A:9, H9F:9, H10A:9, H11A:9, H12A:9, H13:16, H16:B6, H17:A6, H18:A6, H21:A5, H22:6, H24:6, H26:6, H31A:6, H33:6, H35A:6, H58:9, H70:7, H72A:6, H73A:6, H75:6, H80A:6, H81A:6, H92A:6, H95:11, H109:1-9, VLQID1, VLID2, RQID:1, DRQID:2, VQID1

TH24: CMQ1D:19, CMOID:24, H3:7, H7A:10, H8A:9, H9F:9, H10A:9, H11A:9, H12A:9, H13:16, H16:B6, H17:A6, H18:A6, H21:A5, H22:6, H24:6, H26:6, H31A:6, H33:6, H35A:6, H58:9, H70:7, H72A:6, H73A:6, H75:6, H80A:6, H81A:6, H92A:6, H95:11, H109:1-9, VLID2, RPASS, SPCD1-5

Survey of Residential Buildings

RB11: CD3

RB21: SITE, WAVE, AQID:1, AATP:2, VLAQID:1, RQID:1

RB12: AQID, AAQID, BBQID, BBLDG:1-9, BBFLR:1-9, UBLDG, USITE, UWAVE, VLQID, RQID

RB22: SITE, WAVE, AQID, VLQID, RQID

RB13: SITE, WAVE, AQID, VLCQID, RQID

RB23: SITE, WAVE, AQID, AMOD, BMOD, VAQID, VAMOD, VBMOD, RQID, RSDP:2-3

RB14: SITE, WAVE, AQID, AMOD, BMOD, VAQID, VAMOD, VBMOD, RQID, RSDP:2-3

RB24: SITE, WAVE, AQID, AMOD, BMOD, VAQID, VAMOD, VBMOD, RQID

Neighborhood Local Sources Survey

NS11: NIUPC, NDUM2, NDUM3

NS21: NSN, NWN

NS14: NSN, NWN

NS24: LQID:1, L:ST, L:WV, L6:2

Neighborhood Street Observation Survey

NO11: VQID, NSITE, NIUPC, NWVN, NHSNB1-2, NCT1-2A, NCT1-2B, NBLNB1-2, NBNUM1-2A, NBNUM1-2B, VNSITE, VNIUPC, VNWVN, VNHSNB1-2, VNCT1-2A, VNCT1-2B, VNBLNB1-2, VNBNUM1-2A, VNBNUM1-2B

NO14: SITE, WAVE, NVLSITE, NVLWAVE

NO24: QID:1, SITE, WAVE, NVLSITE, NVLWAVE

# Appendix D

## INDEX OF DERIVED VARIABLES

Tables D.1-D.4 list the derived variables that were built for each survey type and the files on which they appear (+) and do not appear (-). Users with a particular derived variable in mind may consult the appropriate table to determine the files on which it appears. Then, in the supplemental codebook[1] for the files of interest, the user will find a full definition of the variable, an explanation of its construction, a list of all permissible values, and frequencies of the unweighted values for all records on the file. To learn whether a derived variable has been built for a particular topic, the user should consult the topical index, Appendix B.

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[1] In some cases, another codebook, as noted in the tables.

Table D.1

LANDLORD SURVEY DERIVED VARIABLES

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| ATP | + | + | + | + | + | + | + | + |
| ATTID* | - | - | + | + | - | - | + | + |
| BA20 | + | + | + | + | + | + | + | + |
| BA34 | + | + | + | - | - | - | - | - |
| BA35 | + | + | + | - | - | - | - | - |
| BKID* | - | - | + | + | - | - | + | + |
| CBLOCK | + | + | + | + | + | + | + | + |
| CED | + | + | + | + | + | + | + | + |
| CODEBK | + | + | + | + | + | + | + | + |
| CTRACT | + | + | + | + | + | + | + | + |
| DRID | + | + | + | + | + | + | + | + |
| DS42 | + | + | + | + | + | + | + | + |
| DUMREC | - | - | + | + | + | + | + | + |
| EA15 | + | + | + | + | + | + | + | + |
| EQFACTOR | + | + | + | + | + | + | + | + |
| FARMADJ | - | + | + | + | + | + | + | + |
| FILENAME | + | + | + | + | + | + | + | + |
| FILL001 | + | + | + | + | + | + | + | + |
| FSCCAT | + | + | + | + | + | + | + | + |
| FSCWT | + | + | + | + | + | + | + | + |
| FSDISC | - | - | + | + | + | + | + | + |
| IDUPDT | - | - | + | + | + | + | + | + |
| INDDBTC | + | + | + | + | + | + | + | + |
| INDDRBJ* | - | - | + | + | - | - | + | + |
| INDECENT* | - | - | + | + | - | - | + | + |
| INDFARM | + | + | + | + | + | + | + | + |
| INDFC | + | + | + | + | + | + | + | + |
| INDIORBJ* | - | - | + | + | - | - | + | + |
| INDLORD* | - | - | + | + | - | - | + | + |
| INDPOS | - | - | + | + | + | + | + | + |
| INDPOSRI | - | - | - | + | + | + | + | + |
| INDPY | - | - | + | + | + | + | + | + |
| INDREFC | - | - | + | + | + | + | + | + |
| INDREG | - | - | + | + | + | + | + | + |
| INDSRC | + | - | - | - | - | - | - | - |
| IORID1* | - | - | + | + | - | - | + | + |
| IORID2* | - | - | + | + | - | - | + | + |
| IORID3* | - | - | + | + | - | - | + | + |
| IORID4* | - | - | + | + | - | - | + | + |
| IORID5* | - | - | + | + | - | - | + | + |
| IORID6* | - | - | + | + | - | - | + | + |

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.1 (cont.)

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| IORID7* | - | - | + | + | - | - | + | + |
| IORID8* | - | - | + | + | - | - | + | + |
| IORID9* | - | - | + | + | - | - | + | + |
| IORID10* | - | - | + | + | - | - | + | + |
| K27FLAG* | - | - | - | - | - | + | + | + |
| K30FLAG* | - | - | - | - | - | + | + | + |
| L2 | + | + | + | + | + | + | + | + |
| L3 | + | + | + | + | + | + | + | + |
| L5* | - | - | + | + | - | - | + | + |
| L6 | + | + | + | + | + | + | + | + |
| L7 | + | + | + | + | + | + | + | + |
| L9 | + | + | + | + | + | + | + | + |
| L12 | + | + | + | + | + | + | + | + |
| L16 | + | + | + | + | + | + | + | + |
| L17 | + | + | + | + | + | + | + | + |
| L19 | + | + | + | + | + | + | + | + |
| L20 | + | + | + | + | + | + | + | + |
| L21 | + | + | + | + | + | + | + | + |
| L36 | + | + | + | + | + | + | + | + |
| L38 | - | + | + | + | + | + | + | + |
| MCOVREP | - | - | - | + | + | + | + | + |
| MNTHSCOV | + | + | + | + | + | + | + | + |
| MORTADJ | + | + | + | + | + | + | + | + |
| NBHDCODE | + | + | + | + | + | + | + | + |
| ORID | + | + | + | + | + | + | + | + |
| PANELS | - | - | + | + | + | + | + | + |
| PANSS | + | + | - | - | - | - | - | - |
| PARATP | - | - | + | + | + | + | + | + |
| POSCAT | - | + | + | + | + | + | + | + |
| PSS | + | + | + | + | + | + | + | + |
| REVPS | + | + | + | + | + | + | + | + |
| SAMWT | + | + | - | - | - | - | - | - |
| SITEWAVE | + | + | + | + | + | + | + | + |
| STRATUM | + | + | + | + | + | + | + | + |
| SUBATP | - | - | + | - | + | - | - | - |
| TENURE | + | + | + | + | + | + | + | + |
| T1 | + | + | + | + | + | + | + | + |
| T2 | + | + | + | + | + | + | + | + |
| T3 | + | + | + | + | + | + | + | + |
| T5 | + | + | + | + | + | + | + | + |
| T19 | + | - | - | - | - | - | - | - |
| T25 | + | + | + | + | + | + | + | + |
| T35 | + | + | + | + | + | + | + | + |

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.1 (cont.)

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| T39* | - | - | + | + | - | - | + | + |
| T41* | - | - | + | + | - | - | + | + |
| T46 | - | - | + | + | + | + | + | + |
| T47 | - | - | + | + | + | + | + | + |
| T47A | - | + | - | - | - | - | - | - |
| T48 | + | + | + | + | + | + | + | + |
| T49 | - | + | + | + | + | + | + | + |
| WLATT* | - | - | + | + | - | - | + | + |
| WPATT* | - | - | + | + | - | - | + | + |
| W1TENURE | - | - | + | + | - | - | - | - |
| W2TENURE | - | - | - | - | + | + | - | - |
| W3TENURE | - | - | - | - | - | - | + | + |
| X1 | + | + | + | + | + | + | + | + |
| X2 | + | + | + | + | + | + | + | + |
| X3 | + | + | + | + | + | + | + | + |
| X4 | + | + | + | + | + | + | + | + |
| X5 | + | + | + | + | + | + | + | + |
| X6 | + | + | + | + | + | + | + | + |
| X8 | + | + | + | + | + | + | + | + |
| X9 | + | + | + | + | + | + | + | + |
| X28 | + | + | + | + | + | + | + | + |
| X34 | + | + | + | + | + | + | + | + |
| X35 | + | + | + | + | + | + | + | + |
| X36 | + | + | + | + | + | + | + | + |
| X38 | + | + | + | + | + | + | + | + |
| X39 | + | + | + | + | + | + | + | + |
| X40 | + | + | + | + | + | + | + | + |
| X41 | + | + | + | + | + | + | + | + |
| X43 | + | + | + | + | + | + | + | + |
| X45 | + | + | + | + | + | + | + | + |
| X59 | - | - | + | + | + | + | + | + |
| X60 | - | - | + | + | + | + | + | + |
| X61 | - | - | + | + | + | + | + | + |
| X62 | - | - | + | + | + | + | + | + |
| X63 | + | + | + | + | + | + | + | + |
| X70 | + | + | + | + | + | + | + | + |
| X71 | + | + | + | + | + | + | + | + |
| X72 | + | + | + | + | + | + | + | + |
| X73 | + | + | + | + | + | + | + | + |
| X74 | + | + | + | + | + | + | + | + |
| Y11 | + | + | + | + | + | + | + | + |
| Y12 | + | + | + | + | + | + | + | + |
| Y13 | + | + | + | + | + | + | + | + |

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.1 (cont.)

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| Y14 | - | + | - | + | - | + | - | + |
| Y15 | + | + | + | + | + | + | + | + |
| Y17 | + | + | + | + | + | + | + | + |
| Y21 | + | + | + | + | + | + | + | + |
| Y22 | + | + | + | + | + | + | + | + |
| Y23 | + | + | + | + | + | + | + | + |
| Y24 | + | + | + | + | + | + | + | + |
| Y25 | + | + | + | + | + | + | + | + |
| Y31 | + | + | + | + | + | + | + | + |
| Y32 | + | + | + | + | + | + | + | + |
| Y34 | + | + | + | + | + | + | + | + |
| Y35 | + | + | + | + | + | + | + | + |
| Y40 | + | + | + | + | + | + | + | + |
| Y41 | + | - | + | + | + | + | + | + |
| Y42 | + | + | + | + | + | + | + | + |
| Y49 | + | + | + | + | + | + | + | + |
| Y50 | + | + | + | + | + | + | + | + |
| Y51 | + | + | + | + | + | + | + | + |
| Y52 | + | + | + | + | + | + | + | + |
| Y53 | + | + | + | + | + | + | + | + |
| Y54 | + | + | + | + | + | + | + | + |
| Y55 | + | + | + | + | + | + | + | + |
| Y56 | + | + | + | + | + | + | + | + |
| Y58 | + | + | + | + | + | + | + | + |
| Y59 | + | + | + | + | + | + | + | + |
| Y60 | + | + | + | + | + | + | + | + |
| Y61 | + | + | + | + | + | + | + | + |
| Y62 | + | + | + | + | + | + | + | + |
| Y63 | + | + | + | + | + | + | + | + |
| Y67 | + | + | + | + | + | + | + | + |
| Y68 | + | + | + | + | + | + | + | + |
| Y70 | + | + | + | + | + | + | + | + |
| Y79 | + | + | + | + | + | + | + | + |
| Y93 | + | + | + | + | + | + | + | + |
| Y94 | + | + | + | + | + | + | + | + |
| Y95 | + | + | + | + | + | + | + | + |
| Y96 | + | + | + | + | + | + | + | + |
| Y97 | + | + | + | + | + | + | + | + |
| Y98 | + | + | + | + | + | + | + | + |
| Y99 | + | + | + | + | + | + | + | + |
| Y100 | + | + | + | + | + | + | + | + |
| Y101 | + | + | + | + | + | + | + | + |
| Y102 | + | + | + | + | + | + | + | + |

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.1 (cont.)

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| Y103 | + | + | + | + | + | + | + | + |
| Y104 | + | + | + | + | + | + | + | + |
| Y105 | + | + | + | + | + | + | + | + |
| Y106 | + | + | + | + | + | + | + | + |
| Y107 | + | + | + | + | + | + | + | + |
| Y108 | + | + | + | + | + | + | + | + |
| Y109 | + | + | + | + | + | + | + | + |
| Y110 | + | + | + | + | + | + | + | + |
| Y111 | - | - | - | + | + | + | + | + |
| Y112 | - | - | - | + | + | + | + | + |
| Y113 | - | - | - | + | + | + | + | + |
| Y114 | + | + | + | + | + | + | + | + |
| Y115 | + | + | + | + | + | + | + | + |
| Y116 | + | + | + | + | + | + | + | + |
| Y117 | + | + | + | + | + | + | + | + |
| Y118 | + | + | + | + | + | + | + | + |
| Y119 | + | + | + | + | + | + | + | + |
| Y120 | + | + | + | + | + | + | + | + |
| Y121 | + | + | + | + | + | + | + | + |
| Y123 | + | + | + | + | + | + | + | + |
| Y124 | + | + | + | + | + | + | + | + |
| Y125 | + | + | + | + | + | + | + | + |
| Y126 | + | + | + | + | + | + | + | + |
| Y127 | + | + | + | + | + | + | + | + |
| Y128 | + | + | + | + | + | + | + | + |
| Y129 | + | + | + | + | + | + | + | + |
| Y130 | + | + | + | + | + | + | + | + |
| Y131 | + | + | + | + | + | + | + | + |
| Y132 | + | + | + | + | + | + | + | + |
| Y133 | - | - | - | + | + | + | + | + |
| Y134 | - | - | - | + | + | + | + | + |
| Y135 | + | + | + | + | + | + | + | + |
| Y136 | - | - | - | + | + | + | + | + |
| Y137 | + | + | + | + | + | + | + | + |
| Y138 | + | + | + | + | + | + | + | + |
| Y140 | + | + | + | + | + | + | + | + |
| Y141 | + | + | + | + | + | + | + | + |
| Y142 | + | + | + | + | + | + | + | + |
| Y143 | + | + | + | + | + | + | + | + |
| Y144 | + | + | + | + | + | + | + | + |
| Y145 | + | + | + | + | + | + | + | + |
| Y146 | + | + | + | + | + | + | + | + |
| Y147 | + | + | + | + | + | + | + | + |

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.1 (cont.)

| Variable | LL11 | LL21 | LL12 | LL22 | LL13 | LL23 | LL14 | LL24 |
|---|---|---|---|---|---|---|---|---|
| Z1 | + | + | + | + | + | + | + | + |
| Z2 | + | + | + | + | + | + | + | + |
| Z8 | + | + | + | + | + | + | + | + |
| Z9 | + | + | + | + | + | + | + | + |
| Z31 | + | + | - | - | - | - | - | - |
| Z41 | + | + | + | + | + | + | + | + |
| Z42 | + | + | + | + | + | + | + | + |
| Z43 | + | + | + | + | + | + | + | + |
| Z44 | + | + | + | + | + | + | + | + |
| Z45 | + | + | + | + | + | + | + | + |
| Z53 | + | + | + | + | + | + | + | + |
| Z56 | - | - | - | + | + | + | + | + |
| Z57 | - | - | - | + | + | + | + | + |
| Z58 | - | - | - | + | + | + | + | + |
| Z63 | + | + | + | + | + | + | + | + |
| Z64 | - | - | + | + | + | + | + | + |
| Z65 | - | - | - | + | + | + | + | + |
| Z67 | + | + | + | + | + | + | + | + |
| Z68 | + | + | + | + | + | + | + | + |

SOURCE: Tabulated by HASE staff from records of the landlord survey, all waves.

NOTE: Starred variables are documented in attitude-module codebooks.

Table D.2

HOUSEHOLD SURVEY DERIVED VARIABLES

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| AGE3 | + | - | - | - | - | - | - | - |
| AGE4 | + | - | - | - | - | - | - | - |
| AGE5 | + | - | - | - | - | - | - | - |
| AGE6 | + | - | - | - | - | - | - | - |
| AGE7 | + | - | - | - | - | - | - | - |
| AGE8 | + | - | - | - | - | - | - | - |
| AGGNBH | - | + | - | + | - | + | - | + |
| AHM | + | - | - | - | - | - | - | - |
| ALTATMOD | - | - | + | + | + | + | + | + |
| ATMODRSP | - | + | + | + | + | + | + | + |
| ATP | + | + | + | + | + | + | + | + |
| BATHS | + | + | + | + | + | + | + | + |
| BA31 | + | + | + | - | - | - | - | - |
| BA31A | - | - | - | + | + | + | + | + |
| BA32 | + | + | - | + | - | - | - | - |
| BA32A | - | - | - | - | - | + | + | + |
| BA33 | + | + | + | + | - | - | - | - |
| BA33A | - | - | - | - | - | + | + | + |
| BLDG | + | + | + | + | + | + | + | + |
| BLDGTYPE | + | + | + | + | + | + | + | + |
| CBLOCK | + | + | + | + | + | + | + | + |
| CED | + | + | + | + | + | + | + | + |
| CENTSTM | + | + | + | + | + | + | + | + |
| CODEBK | + | + | + | + | + | + | + | + |
| CONTRENT | + | + | + | + | + | + | + | + |
| CTENUR | + | + | + | + | + | + | + | + |
| CTRACT | + | + | + | + | + | + | + | + |
| CURDEBT | + | + | + | + | + | + | + | + |
| DRID | + | + | + | + | + | + | + | + |
| DRNCOM | - | - | + | + | + | + | + | + |
| DUMREC | + | + | + | + | + | + | + | + |
| EHS | + | + | + | + | + | + | + | + |
| ENA | + | + | + | + | + | + | + | + |
| ENM | + | + | + | + | + | + | + | + |
| ENS | + | + | + | + | + | + | + | + |
| EQFACTOR | + | + | + | + | + | + | + | + |
| ESTADC | + | + | + | + | + | + | + | + |
| ESTALI | + | + | + | + | + | + | + | + |
| ESTCASH | + | + | + | + | + | + | + | + |
| ESTDIV | + | + | + | + | + | + | + | + |
| ESTEDUC | + | + | + | + | + | + | + | + |
| ESTGENA | + | + | + | + | + | + | + | + |
| ESTINT | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| ESTOTH | + | + | + | + | + | + | + | + |
| ESTPUBA | + | + | + | + | + | + | + | + |
| ESTRENT | + | + | + | + | + | + | + | + |
| ESTRET | + | + | + | + | + | + | + | + |
| ESTRTAX | + | + | + | + | + | + | + | + |
| ESTSEY | + | + | + | + | + | + | + | + |
| ESTSS | + | + | + | + | + | + | + | + |
| ESTSSI | + | + | + | + | + | + | + | + |
| ESTTIP | + | + | + | + | + | + | + | + |
| ESTUE | + | + | + | + | + | + | + | + |
| ESTUF | + | + | + | + | + | + | + | + |
| ESTUG | + | + | + | + | + | + | + | + |
| ESTUN | + | + | + | + | + | + | + | + |
| ESTUO | + | + | + | + | + | + | + | + |
| ESTUR | + | + | + | + | + | + | + | + |
| ESTUS | + | + | + | + | + | + | + | + |
| ESTUW | + | + | + | + | + | + | + | + |
| ESTVET | + | + | + | + | + | + | + | + |
| ESTWAGE | + | + | + | + | + | + | + | + |
| ESTWMC | + | + | + | + | + | + | + | + |
| FACCOUNT | - | - | + | - | - | - | - | - |
| FARMADJ | + | + | + | + | + | + | + | + |
| FCYCLE | + | + | + | + | + | + | + | + |
| FELIG | + | + | + | + | + | + | + | + |
| FILENAME | + | + | + | + | + | + | + | + |
| FILL001 | + | + | + | + | + | + | + | + |
| FLDPTYPE | + | + | + | + | + | + | + | + |
| FLFP | + | + | + | + | + | + | + | + |
| FMODH | - | - | + | - | - | - | - | - |
| FORGCNT | + | + | + | + | + | + | + | + |
| FSCCAT | + | + | + | + | + | + | + | + |
| FSCWT | + | + | + | + | + | + | + | + |
| FSDISC | - | - | + | + | + | + | + | + |
| HAGE | + | + | + | + | + | + | + | + |
| HCPLT | + | + | + | + | + | + | + | + |
| HCPWT | + | + | + | + | + | + | + | + |
| HCYCLE | + | + | + | + | + | + | + | + |
| HDA18 | + | + | + | + | + | - | - | - |
| HDA20 | + | + | + | + | + | + | + | + |
| HDA21 | + | + | + | + | + | + | + | + |
| HDA22 | + | + | + | + | + | + | + | + |
| HDS1 | + | + | + | + | + | + | + | + |
| HDS1A | + | + | + | + | + | + | + | + |
| HDS9 | + | + | + | + | + | + | + | + |
| HDS10 | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| HDS12 | + | + | - | - | - | - | - | - |
| HDS12A | - | - | + | + | + | - | - | - |
| HDS14 | + | + | + | + | + | + | + | + |
| HDS15 | + | + | + | + | + | + | + | + |
| HDS16 | + | + | + | + | + | + | + | + |
| HDS17 | + | + | + | + | + | + | + | + |
| HDS18 | + | + | + | + | + | + | + | + |
| HDS23 | + | + | + | + | + | + | + | + |
| HDS24 | + | + | + | + | + | + | + | + |
| HDS26 | + | + | + | + | + | + | + | + |
| HEA1 | + | + | + | + | + | + | + | + |
| HEA2 | + | + | + | + | + | - | - | - |
| HEDUC | + | + | + | + | + | + | + | + |
| HES1 | + | + | + | + | + | + | + | + |
| HHRACE | + | + | + | + | + | + | + | + |
| HH1ID | + | + | + | + | + | + | + | + |
| HH2ID | + | + | + | + | + | + | + | + |
| HLFP | + | + | + | + | + | + | + | + |
| HSTRUC | + | + | + | + | + | + | + | + |
| HX43 | + | + | + | + | + | + | + | + |
| HX45 | + | + | + | + | + | + | + | + |
| HX47 | + | + | + | + | + | + | + | + |
| HX48 | + | + | + | + | + | + | + | + |
| HX53 | + | + | + | + | + | + | + | + |
| HX70 | + | + | + | + | + | + | + | + |
| HX71 | + | + | + | + | + | + | + | + |
| HX72 | + | + | + | + | + | + | + | + |
| HX73 | + | + | + | + | + | + | + | + |
| HY16 | + | + | + | + | + | + | + | + |
| HY17 | + | + | + | + | + | + | + | + |
| HY18 | + | + | + | + | + | + | + | + |
| HY24 | + | + | + | + | + | + | + | + |
| HY25 | + | + | + | + | + | + | + | + |
| HY28A | + | + | + | + | + | + | + | + |
| HY31 | + | + | + | + | + | + | + | + |
| HY32 | + | + | + | + | + | + | + | + |
| HY34 | + | + | + | + | + | + | + | + |
| HY35 | + | + | + | + | + | + | + | + |
| HY40 | + | + | + | + | + | + | + | + |
| HY49 | + | + | + | + | + | + | + | + |
| HY50 | + | + | + | + | + | + | + | + |
| HY51 | + | + | + | + | + | + | + | + |
| HY52 | + | + | + | + | + | + | + | + |
| HY53 | + | + | + | + | + | + | + | + |
| HY54 | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| HY55 | + | + | + | + | + | + | + | + |
| HY56 | + | + | + | + | + | + | + | + |
| HY93 | + | + | + | + | + | + | + | + |
| HY94 | + | + | + | + | + | + | + | + |
| HY95 | + | + | + | + | + | + | + | + |
| HY96 | + | + | + | + | + | + | + | + |
| HY97 | + | + | + | + | + | + | + | + |
| HY98 | + | + | + | + | + | + | + | + |
| HY99 | + | + | + | + | + | + | + | + |
| HY100 | + | + | + | + | + | + | + | + |
| HY101 | + | + | + | + | + | + | + | + |
| HY102 | + | + | + | + | + | + | + | + |
| HY142 | + | + | + | + | + | + | + | + |
| HY143 | + | + | + | + | + | + | + | + |
| HY144 | + | + | + | + | + | + | + | + |
| HY145 | + | + | + | + | + | + | + | + |
| HY146 | + | + | + | + | + | + | + | + |
| HY147 | + | + | + | + | + | + | + | + |
| IDUPDT | + | + | + | + | + | + | + | + |
| INDCPUR | - | + | - | + | - | + | - | + |
| INDDBTC | + | + | + | + | + | + | + | + |
| INDESTIN | + | + | + | + | + | + | + | + |
| INDEXPC | + | + | + | + | + | + | + | + |
| INDFARM | + | + | + | + | + | + | + | + |
| INDFC | + | + | + | + | + | + | + | + |
| INDHRSC | + | + | + | + | + | + | + | + |
| INDINS | + | + | + | + | + | + | + | + |
| INDINSC | + | + | + | + | + | + | + | + |
| INDLCONT | + | + | + | + | + | + | + | + |
| INDMCAP | + | + | + | + | + | + | + | + |
| INDMREP | + | + | + | + | + | + | + | + |
| INDMTGE | + | + | + | + | + | + | + | + |
| INDPY | + | + | + | + | + | + | + | + |
| INDREPC | + | + | + | + | + | + | + | + |
| INDTAXC | + | + | + | + | + | + | + | + |
| INDUTILC | + | + | + | + | + | + | + | + |
| INDVALC | + | + | + | + | + | + | + | + |
| INDWAVE | - | - | - | + | + | + | + | + |
| INDYEXPC | + | + | + | + | + | + | + | + |
| INFSUMF | - | - | + | + | + | + | + | + |
| INFSUMM | - | - | + | + | + | + | + | + |
| INTQUAL | + | + | + | + | + | + | + | + |
| LLAP | + | + | + | + | + | + | + | + |
| LLC1 | + | + | + | + | + | + | + | + |
| LLC2 | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| LLC3 | + | + | + | + | + | + | + | + |
| LLC4 | + | + | + | + | + | + | + | + |
| LLC5 | + | + | + | + | + | + | + | + |
| LLC6 | + | + | + | + | + | + | + | + |
| MACCOUNT | - | - | + | - | - | - | - | - |
| MCOVREP | + | + | + | + | + | + | + | + |
| MDHRACE1 | - | + | + | + | + | + | + | + |
| MMODH | - | - | + | - | - | - | - | - |
| MNTHSCOV | + | + | + | + | + | + | + | + |
| MODHAGE1 | - | + | + | + | + | + | + | + |
| MODHED1 | - | + | + | + | + | + | + | + |
| MOGRRENT | + | + | + | + | + | + | + | + |
| MORGCNT | + | + | + | + | + | + | + | + |
| MORTADJ | + | + | + | + | + | + | + | + |
| NA | + | + | + | + | + | + | + | + |
| NAM | + | - | - | - | - | - | - | - |
| NAS | + | - | - | - | - | - | - | - |
| NAT | + | - | - | - | - | - | - | - |
| NBHDCODE | + | + | + | + | + | + | + | + |
| NBRSUNT | + | + | + | + | + | + | + | + |
| NC | + | + | + | + | + | + | + | + |
| NEMPP | + | + | + | + | + | + | + | + |
| NETTAX | + | + | + | + | + | + | + | + |
| NEUNTS | + | + | + | + | + | + | + | + |
| NH | + | + | + | + | + | + | + | + |
| NIS | + | - | - | - | - | - | - | - |
| NLUNTS | + | + | + | + | + | + | + | + |
| NM | + | + | + | + | + | + | + | + |
| NMHUNTS | + | + | + | + | + | + | + | + |
| NMOVEYR | + | + | + | + | + | + | + | + |
| NMXBLDS | + | + | + | + | + | + | + | + |
| NNRBLDS | + | + | + | + | + | + | + | + |
| NPS | + | - | - | - | - | - | - | - |
| NRESBLDG | + | + | + | + | + | + | + | + |
| NRUNTS | + | + | + | + | + | + | + | + |
| NS | + | + | + | + | + | + | + | + |
| NTUNTS | + | + | + | + | + | + | + | + |
| NULUNTS | - | - | + | - | - | - | - | - |
| ORID | + | + | + | + | + | + | + | + |
| PP | + | + | + | + | + | + | + | + |
| PPERR | + | + | + | + | + | + | + | + |
| PPM | + | + | + | + | + | + | + | + |
| PSS | + | + | + | + | + | + | + | + |
| PTHI | + | + | + | + | + | + | + | + |
| RESUNIT | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| REVPS | + | + | + | + | + | + | + | + |
| RORGCNT | - | + | + | + | + | + | + | + |
| RSTAT | + | + | + | + | + | + | + | + |
| SAGE | + | + | + | + | + | + | + | + |
| SAMWT | + | + | - | - | - | - | - | - |
| SEDUC | + | + | + | + | + | + | + | + |
| SIMPR | + | + | + | + | + | + | + | + |
| SITEWAVE | + | + | + | + | + | + | + | + |
| SLAND | + | + | + | + | + | + | + | + |
| STRATUM | + | + | + | + | + | + | + | + |
| TAXRATE | + | + | + | + | + | + | + | + |
| TENCHG | + | + | + | + | + | + | + | + |
| TENURE | + | + | + | + | + | + | + | + |
| THI | + | + | + | + | + | + | + | + |
| THINOP | - | - | + | + | + | + | + | + |
| THSTAT | + | + | + | + | + | + | + | + |
| TOTNBLDG | + | + | + | + | + | + | + | + |
| TU | + | + | + | + | + | + | + | + |
| TYPUNT | + | + | + | + | + | + | + | + |
| TY93 | + | + | + | + | + | + | + | + |
| TY94 | + | + | + | + | + | + | + | + |
| TY95 | + | + | + | + | + | + | + | + |
| TY96 | + | + | + | + | + | + | + | + |
| TY97 | + | + | + | + | + | + | + | + |
| TY98 | + | + | + | + | + | + | + | + |
| TY99 | + | + | + | + | + | + | + | + |
| TY100 | + | + | + | + | + | + | + | + |
| TY101 | + | + | + | + | + | + | + | + |
| TY102 | + | + | + | + | + | + | + | + |
| TY142 | + | + | + | + | + | + | + | + |
| TY143 | + | + | + | + | + | + | + | + |
| TY144 | + | + | + | + | + | + | + | + |
| TY145 | + | + | + | + | + | + | + | + |
| TY146 | + | + | + | + | + | + | + | + |
| TY147 | + | + | + | + | + | + | + | + |
| U | + | + | + | + | + | + | + | + |
| UA1 | - | + | + | + | + | + | + | + |
| UA1A | + | - | - | - | - | - | - | - |
| UA2 | - | + | + | + | + | + | + | + |
| UA2A | + | - | - | - | - | - | - | - |
| UCOMP | + | + | + | + | + | + | + | + |
| UE | + | + | + | + | + | + | + | + |
| UF | + | + | + | + | + | + | + | + |
| UG | + | + | + | + | + | + | + | + |
| UNIT | + | + | + | + | + | + | + | + |

Table D.2 (cont.)

| Variable | TH11 | TH21 | TH12 | TH22 | TH13 | TH23 | TH14 | TH24 |
|---|---|---|---|---|---|---|---|---|
| UO | + | + | + | + | + | + | + | + |
| UR | + | + | + | + | + | + | + | + |
| US | + | + | + | + | + | + | + | + |
| USTAT | + | + | + | + | + | + | + | + |
| UTYPE | + | + | + | + | + | + | + | + |
| UW | + | + | + | + | + | + | + | + |
| W1 | + | + | + | + | + | + | + | + |
| W2 | + | + | + | + | + | + | + | + |
| W3 | + | + | + | + | + | + | + | + |
| W4 | + | + | + | + | + | + | + | + |
| W5 | + | + | + | + | + | + | + | + |
| W6 | + | + | + | + | + | + | + | + |
| W7 | + | + | + | + | + | + | + | + |
| W8 | + | + | + | + | + | + | + | + |
| W9 | + | + | + | + | + | + | + | + |
| W10 | + | + | + | + | + | + | + | + |
| W11 | + | + | + | + | + | + | + | + |
| W12 | + | + | + | + | + | + | + | + |
| W1B21T | - | - | + | - | - | - | - | - |
| YAGG | - | + | + | + | + | + | + | + |
| YCMPLT | + | + | + | + | + | + | + | + |
| YCPWT | + | + | + | + | + | + | + | + |
| YMISS | + | + | + | + | + | + | + | + |
| YMIS2 | + | + | + | + | + | + | + | + |

SOURCE: Tabulated by HASE staff from records of the household survey, all waves.

Table D.3

RESIDENTIAL BUILDING SURVEY DERIVED VARIABLES

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| ATP | + | + | + | + | + | + | + | + |
| BALCNY | - | + | + | + | + | + | + | + |
| BANSTR | - | + | + | + | + | + | + | + |
| BA13 | - | + | + | + | + | + | + | + |
| BA14 | - | + | + | + | + | + | + | + |
| BA36 | - | + | + | + | + | + | + | + |
| BA37 | - | + | + | + | + | + | + | + |
| BLDG | + | + | + | + | + | + | + | + |
| BLDLND | - | - | - | - | - | + | + | + |
| BLDWT | - | + | + | - | - | - | + | + |
| BSTAT | + | + | + | + | + | + | + | + |
| BS5 | - | + | + | + | + | + | + | + |
| BS10 | - | + | + | + | + | + | + | + |
| BTYPE | + | + | + | + | + | + | + | + |
| CBLOCK | + | + | + | + | + | + | + | + |
| CED | + | + | + | + | + | + | + | + |
| CEILNG | - | + | + | + | + | + | + | + |
| CHIMNY | - | + | + | + | + | + | + | + |
| CLNPOR | - | + | + | + | + | - | - | - |
| CODEBK | + | + | + | + | + | + | + | + |
| CPAN | + | - | + | + | + | + | + | + |
| CTENUR | + | + | + | + | + | + | + | + |
| CTRACT | + | + | + | + | + | + | + | + |
| DRID | + | + | + | + | + | + | + | + |
| DUMREC | + | + | + | + | + | + | + | + |
| EA5 | - | + | + | + | + | + | + | + |
| EA6 | - | + | + | + | + | + | + | + |
| EA7 | - | + | + | + | + | + | + | + |
| EA8 | - | + | + | + | + | + | + | + |
| EA9 | - | + | + | + | + | + | + | + |
| EA10 | - | + | + | + | + | + | + | + |
| EA11 | - | + | + | + | + | - | - | - |
| ELEVTR | - | + | + | + | + | - | - | - |
| ES6 | - | + | + | + | + | + | + | + |
| ES9 | - | + | + | + | + | + | + | + |
| ES16 | - | + | + | + | + | + | + | + |
| ES17 | - | + | + | + | + | + | + | + |
| EXSTRWY | - | + | + | + | + | + | + | + |
| EXTWAL | - | + | + | + | + | + | + | + |
| EXTWLMAT | - | + | + | + | + | + | + | + |
| EXTWNDW | - | + | + | + | + | + | + | + |
| FILENAME | + | + | + | + | + | + | + | + |
| FILL001 | + | + | + | + | + | + | + | + |

Table D.3 (cont.)

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| FINSTR | + | + | + | + | + | + | + | + |
| FLOOR | - | + | + | + | + | + | + | + |
| FSCCAT | + | + | + | + | + | + | + | + |
| FSDISC | - | - | + | + | + | + | + | + |
| GARGECPT | - | + | + | + | + | + | + | + |
| GRDNG | - | - | - | - | - | + | + | + |
| GUTTRS | - | + | + | + | + | + | + | + |
| IDUPDT | - | - | + | + | + | + | + | + |
| INSTRWY | - | + | + | + | + | + | + | + |
| INTDOR | - | + | + | + | + | + | + | + |
| INTWAL | - | + | + | + | + | + | + | + |
| INTWNDW | - | + | + | + | + | + | + | + |
| LAWN | - | - | - | - | - | + | + | + |
| LNDSCP | - | + | + | + | + | + | + | + |
| LNDSCPNG | - | + | + | + | + | + | + | + |
| LTNG | - | + | + | + | + | + | + | + |
| MAILBX | - | + | + | + | + | + | + | + |
| MAIN | - | - | - | - | - | + | + | + |
| MODB | - | - | + | + | + | + | + | + |
| NBHDCODE | + | + | + | + | + | + | + | + |
| OLDB15 | - | - | + | - | - | - | - | - |
| ORID | + | + | + | + | + | + | + | + |
| OUTBLDG | - | + | + | + | + | + | + | + |
| PATP | - | - | + | + | + | + | + | + |
| PBALCNY | - | + | + | + | + | + | + | + |
| PBANSTR | - | + | + | + | + | + | + | + |
| PBLDG | - | - | + | + | + | + | + | + |
| PBLDLND | - | - | - | - | - | + | + | + |
| PCEILNG | - | + | + | + | + | + | + | + |
| PCHIMNY | - | + | + | + | + | + | + | + |
| PCLNPOR | - | + | + | + | + | - | - | - |
| PELEVTR | - | + | + | + | + | - | - | - |
| PERMDR | - | + | + | + | + | + | + | + |
| PERMPN | - | - | + | + | + | + | + | + |
| PEXSTRWY | - | + | + | + | + | + | + | + |
| PEXTWAL | - | + | + | + | + | + | + | + |
| PEXTWNDW | - | + | + | + | + | + | + | + |
| PFLOOR | - | + | + | + | + | + | + | + |
| PGRDNG | - | - | - | - | - | + | + | + |
| PGUTTRS | - | + | + | + | + | + | + | + |
| PID | - | - | + | + | + | + | + | + |
| PINSTRWY | - | + | + | + | + | + | + | + |
| PINTDOR | - | + | + | + | + | + | + | + |
| PINTWAL | - | + | + | + | + | + | + | + |
| PINTWNDW | - | + | + | + | + | + | + | + |

Table D.3 (cont.)

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| PLAWN | - | - | - | - | - | + | + | + |
| PLNDSCP | - | + | + | + | + | + | + | + |
| PLTNG | - | + | + | + | + | + | + | + |
| PMAILBX | - | + | + | + | + | + | + | + |
| PMAIN | - | - | - | - | - | + | + | + |
| PORCH | - | + | + | + | + | + | + | + |
| POUTBLDG | - | + | + | + | + | + | + | + |
| PPERMDR | - | + | + | + | + | + | + | + |
| PPORCH | - | + | + | + | + | + | + | + |
| PPUBWLK | - | - | - | - | - | + | + | + |
| PROOF | - | + | + | + | + | + | + | + |
| PSCRNDR | - | + | + | + | + | - | - | - |
| PSCRNWDW | - | + | + | + | + | - | - | - |
| PSIDWLK | - | + | + | + | + | + | + | + |
| PSS | - | + | + | - | - | - | + | + |
| PSTREET | - | + | + | + | + | + | + | + |
| PSTRMDR | - | + | + | + | + | - | - | - |
| PSTRMWDW | - | + | + | + | + | - | - | - |
| PUBWLK | - | - | - | - | - | + | + | + |
| PVBALCNY | - | - | - | - | - | + | + | + |
| PVBANSTR | - | - | - | - | - | + | + | + |
| PVBLDLND | - | - | - | - | - | + | + | + |
| PVCEILNG | - | - | - | - | - | + | + | + |
| PVCHIMNY | - | - | - | - | - | + | + | + |
| PVEXSTWY | - | - | - | - | - | + | + | + |
| PVEXTWAL | - | + | + | + | + | + | + | + |
| PVEXWNDW | - | - | - | - | - | + | + | + |
| PVFLOOR | - | + | + | + | + | + | + | + |
| PVGRDNG | - | - | - | - | - | + | + | + |
| PVGUTTRS | - | - | - | - | - | + | + | + |
| PVINSTWY | - | - | - | - | - | + | + | + |
| PVINTDOR | - | - | - | - | - | + | + | + |
| PVINTWAL | - | + | + | + | + | + | + | + |
| PVINWNDW | - | - | - | - | - | + | + | + |
| PVLAWN | - | - | - | - | - | + | + | + |
| PVLNDSCP | - | - | - | - | + | + | + | + |
| PVLTNG | - | - | - | - | - | + | + | + |
| PVMAILBX | - | - | - | - | - | + | + | + |
| PVMAIN | - | - | - | - | - | + | + | + |
| PVOUTBLD | - | - | - | - | + | + | + | + |
| PVPERMDR | - | - | - | - | - | + | + | + |
| PVPORCH | - | - | - | - | - | + | + | + |
| PVPUBWLK | - | - | - | - | - | + | + | + |
| PVROOF | - | - | - | - | - | + | + | + |
| PVSIDWLK | - | - | - | - | - | + | + | + |

Table D.3 (cont.)

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| PVSTREET | - | + | + | + | + | + | + | + |
| PVYARD | - | - | - | - | + | + | + | + |
| PYARD | - | + | + | + | + | + | + | + |
| RBALCNY | - | + | + | + | + | + | + | + |
| RBANSTR | - | + | + | + | + | + | + | + |
| RBLDLND | - | - | - | - | - | + | + | + |
| RCEILNG | - | + | + | + | + | + | + | + |
| RCHIMNY | - | + | + | + | + | + | + | + |
| RCLNPOR | - | + | + | + | + | - | - | - |
| RECSTA | - | - | + | + | + | + | + | + |
| REFLDFSC | - | - | + | - | - | - | - | - |
| RELEVTR | - | + | + | + | + | - | - | - |
| REVPS | - | + | + | - | - | - | + | + |
| REXSTRWY | - | + | + | + | + | + | + | + |
| REXTWAL | - | + | + | + | + | + | + | + |
| REXTWNDW | - | + | + | + | + | + | + | + |
| RFLOOR | - | + | + | + | + | + | + | + |
| RFMAT | - | + | + | + | + | + | + | + |
| RFTYPE | - | + | + | + | + | + | + | + |
| RGRDNG | - | - | - | - | - | + | + | + |
| RGUTTRS | - | + | + | + | + | + | + | + |
| RINSTRWY | - | + | + | + | + | + | + | + |
| RINTDOR | - | + | + | + | + | + | + | + |
| RINTWAL | - | + | + | + | + | + | + | + |
| RINTWNDW | - | + | + | + | + | + | + | + |
| RLAWN | - | - | - | - | - | + | + | + |
| RLNDSCP | - | + | + | + | + | + | + | + |
| RLTNG | - | + | + | + | + | + | + | + |
| RMAILBX | - | + | + | + | + | + | + | + |
| RMAIN | - | - | - | - | - | + | + | + |
| ROOF | - | + | + | + | + | + | + | + |
| ROUTBLDG | - | + | + | + | + | + | + | + |
| RPAN | - | - | + | + | + | + | + | + |
| RPERMDR | - | + | + | + | + | + | + | + |
| RPORCH | - | + | + | + | + | + | + | + |
| RPUBWLK | - | - | - | - | - | + | + | + |
| RROOF | - | + | + | + | + | + | + | + |
| RSCRNDR | - | + | + | + | + | - | - | - |
| RSCRNWDW | - | + | + | + | + | - | - | - |
| RSIDWLK | - | + | + | + | + | + | + | + |
| RSTREET | - | + | + | + | + | + | + | + |
| RSTRMDR | - | + | + | + | + | - | - | - |
| RSTRMWDW | - | + | + | + | + | - | - | - |
| RVBALCNY | - | - | - | - | - | + | + | + |
| RVBANSTR | - | - | - | - | - | + | + | + |

Table D.3 (cont.)

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| RVBLDLND | - | - | - | - | - | + | + | + |
| RVCEILNG | - | - | - | - | - | + | + | + |
| RVCHIMNY | - | - | - | - | - | + | + | + |
| RVEXSTWY | - | - | - | - | - | + | + | + |
| RVEXTWAL | - | + | + | + | + | + | + | + |
| RVEXWNDW | - | - | - | - | - | + | + | + |
| RVFLOOR | - | + | + | + | + | + | + | + |
| RVGRDNG | - | - | - | - | - | + | + | + |
| RVGUTTRS | - | - | - | - | - | + | + | + |
| RVINSTWY | - | - | - | - | - | + | + | + |
| RVINTDOR | - | - | - | - | - | + | + | + |
| RVINTWAL | - | + | + | + | + | + | + | + |
| RVINWNDW | - | - | - | - | - | + | + | + |
| RVLAWN | - | - | - | - | - | + | + | + |
| RVLNDSCP | - | - | - | - | + | + | + | + |
| RVLTNG | - | - | - | - | - | + | + | + |
| RVMAILBX | - | - | - | - | - | + | + | + |
| RVMAIN | - | - | - | - | - | + | + | + |
| RVOUTBLD | - | - | - | - | + | + | + | + |
| RVPERMDR | - | - | - | - | - | + | + | + |
| RVPORCH | - | - | - | - | - | + | + | + |
| RVPUBWLK | - | - | - | - | - | + | + | + |
| RVROOF | - | - | - | - | - | + | + | + |
| RVSIDWLK | - | - | - | - | - | + | + | + |
| RVSTREET | - | + | + | + | + | + | + | + |
| RVYARD | - | - | - | - | + | + | + | + |
| RYARD | - | + | + | + | + | + | + | + |
| SAMWT | - | + | - | - | - | - | - | - |
| SATP | - | - | + | - | + | - | - | - |
| SBLDG | - | - | + | - | + | - | - | - |
| SCRNDR | - | + | + | + | + | - | - | - |
| SCRNWDW | - | + | + | + | + | - | - | - |
| SID | - | - | + | - | + | - | - | - |
| SIDWLK | - | + | + | + | + | + | + | + |
| SITEWAVE | + | + | + | + | + | + | + | + |
| SRBSTA | + | + | + | + | + | + | + | + |
| STREET | - | + | + | + | + | + | + | + |
| STRMDR | - | + | + | + | + | - | - | - |
| STRMWDW | - | + | + | + | + | - | - | - |
| SWTCH | - | - | + | - | - | - | - | - |
| VBALCNY | - | - | - | - | - | + | + | + |
| VBANSTR | - | - | - | - | - | + | + | + |
| VBLDLND | - | - | - | - | - | + | + | + |
| VCEILNG | - | - | - | - | - | + | + | + |
| VCHIMNY | - | - | - | - | - | + | + | + |

Table D.3 (cont.)

| Variable | RB11 | RB21 | RB12 | RB22 | RB13 | RB23 | RB14 | RB24 |
|---|---|---|---|---|---|---|---|---|
| VEXSTWY | - | - | - | - | - | + | + | + |
| VEXTWAL | - | + | + | + | + | + | + | + |
| VEXWNDW | - | - | - | - | - | + | + | + |
| VFLOOR | - | + | + | + | + | + | + | + |
| VGRDNG | - | - | - | - | - | + | + | + |
| VGUTTRS | - | - | - | - | - | + | + | + |
| VINSTWY | - | - | - | - | - | + | + | + |
| VINTDOR | - | - | - | - | - | + | + | + |
| VINTWAL | - | + | + | + | + | + | + | + |
| VINWNDW | - | - | - | - | - | + | + | + |
| VLAWN | - | - | - | - | - | + | + | + |
| VLNDSCP | - | - | - | - | + | + | + | + |
| VLTNG | - | - | - | - | - | + | + | + |
| VMAILBX | - | - | - | - | - | + | + | + |
| VMAIN | - | - | - | - | - | + | + | + |
| VOUTBLD | - | - | - | - | + | + | + | + |
| VPERMDR | - | - | - | - | - | + | + | + |
| VPORCH | - | - | - | - | - | + | + | + |
| VPUBWLK | - | - | - | - | - | + | + | + |
| VRFMAT | - | - | - | - | - | + | + | + |
| VRFTYPE | - | + | + | + | + | + | + | + |
| VROOF | - | - | - | - | - | + | + | + |
| VSIDWLK | - | - | - | - | - | + | + | + |
| VSTREET | - | + | + | + | + | + | + | + |
| VXWLMAT | - | + | + | + | + | + | + | + |
| VYARD | - | - | - | - | + | + | + | + |
| WOODCOMP | - | + | + | + | + | + | + | + |
| W1TENURE | - | - | + | - | - | - | - | - |
| YARD | - | + | + | + | + | + | + | + |

SOURCE: Tabulated by HASE staff from records of the survey of residential buildings, all waves.

Table D.4

NEIGHBORHOOD SURVEY DERIVED VARIABLES

| Variable | NS11 | NO11 | NS21 | NO21 | NS14 | NO14 | NS24 | NO24 |
|---|---|---|---|---|---|---|---|---|
| ACRES | + | - | + | - | + | - | + | - |
| AREA | + | + | - | - | + | - | - | - |
| AUDITCNT | - | - | - | + | - | + | - | + |
| BASESEG | - | - | - | - | - | + | - | + |
| CBLOCK | - | - | - | - | - | + | - | + |
| CBLOCK1 | - | - | - | - | - | - | - | + |
| CBLOCK2 | - | - | - | - | - | - | - | + |
| CED | - | - | - | - | - | + | - | + |
| CED1 | - | - | - | - | - | + | - | + |
| CED2 | - | - | - | - | - | + | - | + |
| CITY | + | + | - | - | + | - | - | - |
| CLN | + | - | + | - | + | - | + | - |
| CMPR1 | - | - | - | - | - | + | - | + |
| CMPR2 | - | - | - | - | - | + | - | - |
| CMPR2A | - | - | - | - | - | + | - | + |
| CMPR2B | - | - | - | - | - | + | - | - |
| CMPR3 | - | - | - | - | - | + | - | + |
| CODEBK | - | - | - | - | - | + | - | + |
| CTRACT | - | - | - | - | - | + | - | + |
| CTRACT1 | - | - | - | - | - | - | - | + |
| CTRACT2 | - | - | - | - | - | - | - | + |
| DATASUB | - | - | - | - | - | + | - | + |
| DISTRT | + | - | + | - | + | - | + | - |
| DIST1CBD | + | - | + | - | + | - | + | - |
| DIST2CBD | + | - | - | - | + | - | - | - |
| DIST3CBD | - | - | + | - | - | - | + | - |
| FEMP | - | - | + | - | + | - | + | - |
| FILENAME | + | + | + | + | + | + | + | + |
| FSC | - | - | - | - | - | + | - | - |
| GAE1 | + | - | + | - | + | - | + | - |
| GAE2 | + | - | + | - | + | - | + | - |
| INCONFLG | - | + | - | + | - | + | - | + |
| MEMP | - | - | + | - | + | - | + | - |
| NBHDCODE | + | + | + | + | + | + | + | + |
| NBHDSEG | - | + | - | + | - | + | - | + |
| NBRESB | - | - | - | - | - | + | - | + |
| QPS | + | - | + | - | + | - | + | - |
| QRB | + | - | + | - | + | - | + | - |
| QRL | + | - | + | - | + | - | + | - |
| QSW | + | - | + | - | + | - | + | - |

NOTE: Variables built for the wave 4 files (last four columns) are documented in the main neighborhood survey codebooks.

Table D.4 (cont.)

| Variable | NS11 | NO11 | NS21 | NO21 | NS14 | NO14 | NS24 | NO24 |
|---|---|---|---|---|---|---|---|---|
| QVL | + | - | + | - | + | - | + | - |
| RCLN | - | - | - | - | - | + | - | + |
| RPS | - | - | - | - | - | + | - | + |
| RSW | - | - | - | - | - | + | - | + |
| SITEWAVE | + | + | + | + | + | + | + | + |
| URBNBHD | + | + | + | - | - | - | + | - |
| VALIDATB | - | + | - | - | - | + | - | + |
| VALIDATE | - | + | - | - | - | - | - | + |
| WGTFEMP | + | - | + | - | + | - | + | - |
| WGTMEMP | + | - | + | - | + | - | + | - |
| X | + | - | + | - | + | - | + | - |
| Y | + | - | + | - | + | - | + | - |

SOURCE: Tabulated by HASE staff from records of the neighborhood local sources and street observation surveys, all waves.

NOTE: Variables built for the wave 4 files (last four columns) are documented in the main neighborhood survey codebooks.