Portability Moves in the Housing Choice Voucher Program, 1998–2005

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Abstract

Portability in the Housing Choice Voucher Program (HCVP) enables a household to use a voucher issued in one jurisdiction when moving to another jurisdiction where the program is administered by a different local public housing agency. This article reports the results from a study examining portability moves in the HCVP from 1998 to 2005. Using a specially constructed longitudinal data set developed from U.S. Housing and Urban Development administrative records, the study identifies records that represent portability moves and then analyzes household and neighborhood characteristics associated with portability moves. Of the 3.4 million households that received housing assistance in the voucher program from 1998 to 2005, 8.9 percent made a portability move. The rate of portability movers was highest among African-American households (10.3 percent) compared with White households (8.1 percent) and Hispanic households (8.6 percent). Compared with households in the HCVP overall, portability movers are more likely to comprise households with young children and more likely to have a younger head of household. Length of stay in the HCVP is correlated with portability moves, and portability moves are most likely to occur between the fourth and fifth years of HCVP participation. When examining public housing jurisdictions by program costs, three-fifths of portability moves were made to lower cost jurisdictions compared with the originating jurisdiction. The data also show reductions in census tract poverty rates and other neighborhood indicators for households that completed portability moves.

Introduction

The U.S. Department of Housing and Urban Development's (HUD's) Housing Choice Voucher Program (HCVP) provides program participants with considerable flexibility in choosing their own housing. Participants may decide to use their voucher to continue renting in their current housing unit (lease in place), move to another housing unit in the immediate vicinity, or move to a jurisdiction where the program is administered by a different local public housing agency (PHA). Moves to areas outside the jurisdiction that issued the voucher are permitted under the HCVP's portability provisions.

Research conducted in 2003 on mobility in the HCVP (Feins and Patterson, 2005) determined the extent to which families with children use the voucher to move to another unit and described selected characteristics of the neighborhoods those households chose. This article focuses on the portability of HCVP vouchers and whether portability is an important contributor to mobility in the HCVP. This research extends the methods developed in the mobility study (Feins and Patterson, 2005). Using longitudinal data for the years 1998 to 2005, this study on portability determines the extent to which families use their vouchers to make portability moves.

In this article, we describe the analysis steps undertaken to determine the number of portability moves that occurred from 1998 to 2005. Through a series of tables, we assess the extent of portability moves in the HCVP. The descriptive analysis tables summarize the characteristics of the households that have undertaken portability and the characteristics of the neighborhoods and jurisdictions where portability households lived before and after their moves. The origination or preportability location is where the household lived before making a portability move, and the destination location is where the household lived as a result of completing a portability move. Also, using a logit model, we examine the characteristics of households that undertook a portability move and explore whether households with certain demographic characteristics are statistically more likely to exercise portability in the HCVP.

Data and Sources

The primary data source for this research was longitudinal HCVP data, collected through HUD Form 50058, from HUD's Multifamily Tenant Characteristics System/Public and Indian Housing Information Center (MTCS/PIC) database.[1] Our approach to the data was based on our experience conducting the HCVP geographical mobility study described earlier, and we have used the same approaches to adjust for temporal discontinuities in the data. We have paid particular attention to portability moves that originate in one of the 25 most racially segregated metropolitan statistical areas (MSAs). We have relied on the racial housing pattern analysis that the U.S. Census Bureau produced to identify the 25 most racially segregated MSAs nationally.

[1] The earliest HUD Form 50058 data records were collected through the Multifamily Tenant Characteristics System, and the later HUD Form 50058 data records were collected through the Public and Indian Housing Information Center, Form HUD-50058 submodule. The later data are referred to as "PIC data."

For this research, we have used the following four data sources.

1. *Multifamily Tenant Characteristics System/Public and Indian Housing Information Center database.* The MTCS/PIC database from 1997 to 2005[2] contains nearly 14 million records—3.3 million certificate records and 10.5 million voucher records. The total number of records by year increases steadily, from about 1.1 million in 1997 to 1.9 million in 2005. Each file, consisting of an 18-month snapshot of data taken in December each year, contains a record for each household reported to HUD as receiving tenant-based housing assistance during the 1997-to-2005 period. Households that received assistance continually during this period have one record for each year of program participation, assuming that the relevant housing agency reported the household's data each year. This data set includes selected household characteristics and location data, based on the geocoding of address data. Actual address data, however, were not included in the MTCS/PIC data files. In addition to the MTCS/PIC data files it originally provided for this research, HUD also provided geocoding updates and data based on HUD Form 50058 that specifically deal with portability.[3]

2. *Census 2000 Summary File 3.* Census data were used in the analyses to describe the neighborhood characteristics of HCVP households at origination and destination. Neighborhood descriptors include the percentage of persons who are (1) in poverty, (2) minorities, and (3) African Americans and the percentage of households that are (1) female-headed with children and (2) renters. We compiled these data using the Census 2000 Summary File 3 state files on DVD and merging the census tract data into the MTCS/PIC records using the 2000 Census census tract identifier. In this analysis, we also used a census tract-level data file indicating metropolitan status (central city, suburb, or nonmetropolitan).[4]

   We used census data to create a dissimilarity index to identify the metropolitan areas most segregated by income. This index examined levels of segregation between the estimated number of families with an annual income below 30 percent of metropolitan area median income and families with an annual income of more than $200,000. Based on metropolitan statistical area/primary metropolitan statistical area (MSA/PMSA) definitions of June 30, 1999, we chose the 25 metropolitan areas with the highest income dissimilarity index score and a population of at least 250,000 to compose a list of the metropolitan areas with the highest levels of income segregation. The list of these metropolitan areas appears in the appendix.

[2] The Multifamily Tenant Characteristics System/Public and Indian Housing Information Center database contains records of data snapshots taken from 1997 to 2005. Analysis focused on portability moves made from 1998 to 2005. We used the data from 1997 to help determine if a 1998 action was a portability move.

[3] The questions for the supplemental data from HUD Form 50058 read as follows:
Question 12d: "Did family move into your PHA [public housing agency] jurisdiction under portability? (Y or N)"
Question 12e: "Cost billed per month (put 0 if absorbed)"
Question 12f: "PHA code billed"

[4] We have used a file created by HUD for the HUD National Low Income Housing Tax Credit database, which uses census tract populations to classify each census tract as being located in a metropolitan area central city, a metropolitan area but not in the central city (suburb), or a nonmetropolitan area. Data for Puerto Rico were not available in this data file. Metropolitan areas are defined according to the metropolitan statistical area/primary metropolitan statistical area definitions published June 30, 1999.

3. *Housing Patterns Data, Decennial Census.* To complete the analysis that examines areas with high levels of segregation, we relied on the racial housing pattern analyses produced by the U.S. Census Bureau (Iceland, Weinberg, and Steinmetz, 2002; U.S. Census Bureau, 2005). These analyses produced segregation indices for metropolitan areas using census tracts or block groups as the unit of analysis. For the voucher portability analysis, we chose the most commonly used index, the dissimilarity index. As with the income segregation index, we chose the 25 metropolitan areas with the highest dissimilarity index score and a population of at least 250,000 to compose a list of metropolitan areas with the highest levels of racial segregation. The list of these metropolitan areas appears in the appendix.

4. *Data on PHA Costs Per Unit.* To support analysis of whether portability moves are made to lower or higher cost jurisdictions, HUD provided data on PHA costs per unit. These data, from information in HUD's Voucher Management System, are monthly averages based on data from April 2005 to March 2006. Monthly average costs were derived by totaling subsidy costs and administrative fees, then dividing them by the total number of occupied units (as measured by the unit months of voucher utilization).[5]

Analysis Approach

Analysis included a series of data processing steps to create household-based analytic records, determine if and when a portability move may have occurred, and assess which of the possible portability moves could be confirmed to represent an HCVP portability move.

Accounting for Time Discontinuities

To analyze household data from year to year for this research, we needed continuity in household records. Continuity was important because we wanted to determine portability moves during ongoing participation in the HCVP, as well as portability at entry. We also wanted to more accurately determine the size of the HCVP, as defined by the number of households,[6] during each of the analysis years.

To create a set of analysis records, we selected households and household records with sufficient year-to-year data. We believe that multiyear gaps in program data do not provide sufficiently reliable information; therefore, when a household was missing in two or more consecutive MTCS/PIC reference year files, the household was dropped from the analysis. For households with data gaps of only one reference year file, when the previous and succeeding locations appeared to be the same based on geocoding data, we assumed the household was at the same address during the missing year. When the previous and succeeding census tract identifiers were different, we inferred that a move occurred between the effective dates of the previous and succeeding records, and a

[5] Public housing agencies (PHAs) missing from the PHA Costs Per Unit data file included the 25 PHAs in the Moving to Work Demonstration and other, mostly smaller, housing agencies that have left the Housing Choice Voucher Program or are nonreporting.

[6] We considered using only active households as the basis for determining the size of the Housing Choice Voucher Program (HCVP). Households appear only once in each reference year of data. Although a household's transaction may represent an end of participation, that household was still active in the program at some point in the year. For that reason, we included households coded as leaving the HCVP as an annual participant in the HCVP.

move date was set by interpolation. These moves did not necessarily represent portability moves, although they did indicate a change in household residence location.

Identifying Possible Portability Moves

A key step in these analyses was identifying the possible portability moves. The MTCS/PIC data contain no single item that consistently labeled a record as a portability move, so we needed to evaluate related items and develop a decision rule. The process included a series of tests for a possible portability move. Each test created a flag for the record, tracking the basis for identifying the record as a possible portability move. Following is a description of the series of data steps we took to create flags for possible portability moves.

1. **Signify when the type of action code is a portability move-in.** If the type of action code on HUD Form 50058 indicated a portability move-in, the record was flagged as a possible portability move. The date of the portability move was based on the record's effective date.
2. **Signify when the type of action code is a portability move-out.** If the type of action code indicated a portability move-out, the household's succeeding record was flagged as a possible portability move. The date of the portability move was based on the effective date of the move-out record.
3. **Identify changes in the housing agency code.** If a household record's housing agency code changed from the same household's previous record, the latter record was flagged as a possible portability move. The date of the portability move was based on the effective date of the latter record.
4. **Identify changes in the household's metropolitan area location.** Because of varying sizes of housing agency jurisdictions, changes in census place alone cannot be considered a reliable indicator for identifying a possible portability move;[7] however, changes in metropolitan area or state should be reliable indicators of a portability move. If a household record's metropolitan area changed from the same household's previous record, the latter record was flagged as a possible portability move. The date of the portability move was based on the latter record's effective date. This flag could be created only for successively geocoded records.
5. **Identify changes in the household's state location.** Similarly, if a household record's state changed from the same household's previous record, the latter record was flagged as a possible portability move. The date of the portability move was based on the latter record's effective date. This flag could be created only for successively geocoded records.

   Of special consideration were the instances in which a household exercised portability on admission to the HCVP. According to the HUD Form 50058 instruction booklet, any household that was a new admission should be coded as a new admission, even though the household possibly could be moving into the PHA program through portability. The data steps to identify and flag possible portability moves described earlier may also identify households whose initial unit in the HCVP was a portability move. Other methods used in the study to identify possible portability moves specifically at admission to the HCVP are described next.

[7] For example, a change of place does not imply portability in countywide housing agencies.

6. **Check the new admission records for changes in location based on previous location ZIP Code.** In addition to including the geocoding data representing the household's current location, each record included a ZIP Code that we believe indicated the ZIP Code of the preprogram location. This field was available mostly for the new admission records. Using the Census 2000 files of 5-digit ZIP Code tabulation areas, we determined the state location of the five-digit ZIP Codes. For new admission records that indicated a difference in state based on the preprogram ZIP Code field and the current record's state, the record was flagged as a possible portability move on admission to the HCVP. The date of portability was based on the effective date. This flag could be created only for geocoded records with a state location identified.

7. **Check the new admission record using HUD Form 50058 question 12d.** Another way to determine portability moves upon admission involved using other data from the HUD Form 50058. According to the HUD Form 50058 instruction booklet, any household that was a new admission should be coded as a new admission, even though the household possibly could be moving into the PHA program through portability. Question 12d asks whether the family is or was a portability move-in. For new admission records that indicated "yes" to question 12d, the record was flagged as a possible portability move upon admission to the HCVP. The date of portability was based on the effective date.

Assessing and Confirming Possible Portability Moves

We used those seven tests and criteria to identify possible portability moves. After we created those data flags to indicate the possible moves, we reviewed the data to assess which flag or combination of flags would most reliably indicate a portability move. Our goal was to be able to identify portability moves and count them with considerable certainty.

We supposed that if a portability move record had more than one portability move flag, sufficient reason existed to believe the record was a portability move, but portability move records determined by only one flag merited further review. We had theorized that, for all the portability moves by households continuing in the HCVP, portability move records would be flagged because of a change in housing agency code. In fact, comparing all the portability flags, by far, the largest share of records flagged as possible portability moves included a change in housing agency code. We had also theorized that with a portability move, we would expect to see a change in location and—in most cases—a change in census tract location. After closer review of the intersection of possible portability moves determined by one portability move criterion and whether or not there was a change in census tract location, we noticed that if a possible portability move was flagged only because of the change in housing agency code, no change appeared in census tract location in about 50 percent of the cases.[8]

[8] We have gained some understanding of these results with anecdotal support. We have heard from colleagues familiar with the Housing Choice Voucher Program that, in some statewide programs, agreements have been made with local housing agencies such that the administration of certain household vouchers is transferred to the local agency. A household would not move, but the administering housing agency for it would change—a relatively rare occurrence. For such cases, the year-to-year data would show that the household had not moved; yet, the reporting housing agency for the household would have changed. In this analysis, in that scenario, we would have flagged the housing agency change record as a possible portability move. It is not clear how often these cases can explain our results, but the cases in our analysis do seem to be isolated to certain states, and the change in housing agency codes is for housing agencies in the same state.

The set of records in which the housing agency code changed but the residence location did not change was the only group with possible portability moves that we did not count as portability moves. If three conditions were met—(1) a record was flagged as a possible portability move, (2) the only basis was a change in housing agency code, and (3) there was no change in census tract location—it was likely not a real portability move.

Following is a summary of the decision rules we applied to the possible portability moves before we accepted them as valid portability moves for analysis:

- If the possible portability move was identified by more than one criterion, it was accepted as a portability move.
- If the possible portability move was identified by only one criterion, then—
  - If the single criterion was not the change in housing agency code, it was accepted as a portability move.
  - If the single criterion was the change in housing agency code, then—
    - If the census tract location changed from the previous location, it was accepted as a portability move.
    - If the census tract location did not change from the previous location, it was excluded from the portability move analysis.

Results of Determining HCVP Portability Moves

In exhibit 1, we show the year-by-year results of the decision rules to determine portability moves in the HCVP from 1998 to 2005. Of all 3.4 million households ever in the federal housing voucher program from 1998 to 2005, we estimate that 8.9 percent used their voucher to exercise a portability move to another jurisdiction, counting both initial moves (at admission) and later moves while continuing to receive assistance in the program (after admission). By year, the percentage of households with a portability move appears to be decreasing, from 5.1 percent in 1998 to 1.6 percent in 2005.[9] New admission portability moves occurred for about only 1 percent of all HCVP households during the study period.

Of the households with a portability move from 1998 to 2005, 71.2 percent showed a change in housing agency code. Nearly 40 percent showed a change in metropolitan area code. Records showing a change in state location accounted for 34 percent of those portability move households, and 27.4 percent of portability move households were coded as a portability move-in by their MTCS/PIC record transaction code. Of all portability move households, we estimate that

[9] We have seen in reviewing the Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data that slightly more than 1 percent of the households coded by transaction type exercised portability, both from 1997 to 2005 and in 2005. Because we use not only the transaction codes but also other household record data—including geocodes and location information—to determine a portability move, we expected to find a larger portion of households with portability moves. In fact, the rate has been two to three times greater in most years of the study period.

10.6 percent moved as they entered the HCVP. No trend appeared in the proportion of portability moves occurring at admission from year to year. The percentage of portability moves that were new admissions ranged from 4.9 percent in 1999 to 12.5 percent in 2005.

Exhibit 1

Percent of HCVP Households With Portability Moves During the Year, 1998–2005

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
	(thousands)								
Number of HCVP households	1,078	1,310	1,443	1,344	1,627	1,848	1,831	1,718	3,390
All portability moves	(percent)								
Percent with portability moves	5.1	3.4	2.9	2.8	3.4	2.6	2.4	1.6	8.9
Among all portability moves									
Percent portability move-in code	11.7	16.5	22.6	25.8	29.8	36.4	27.5	31.0	27.4
Percent portability move-out code	6.4	6.0	5.9	9.5	12.7	13.0	11.0	NA	9.9
Percent change in housing agency code	44.6	61.9	68.9	75.0	77.4	78.3	83.9	83.3	71.2
Percent change in metropolitan area code	20.9	31.0	36.9	37.7	39.0	44.1	50.5	52.1	38.9
Percent change in state code	50.8	40.7	30.8	24.7	23.0	25.4	29.5	30.0	34.0
Percent current state location differs from preprogram ZIP Code's state location	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Percent new admission record with Form 50058 portability flag	9.4	4.8	7.5	8.8	11.3	10.1	9.5	12.5	10.6
Portability moves at admission									
Percent with portability move at admission	0.5	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.9
Percent of portability moves that were at admission	9.4	4.9	7.6	8.9	11.3	10.1	9.5	12.5	10.6
Portability moves after admission									
Percent with portability moves after admission	4.6	3.3	2.6	2.5	3.0	2.3	2.2	1.4	8.1
Percent of portability moves that were after admission	90.6	95.1	92.4	91.1	88.8	90.0	90.5	87.5	91.4

HCVP = Housing Choice Voucher Program. NA = not available.

Notes: The sum of portability moves at admission and portability moves after admission in the HCVP may not equal the number of total portability moves because households may have completed more than one portability move in a calendar year. Data for the All portability moves *column count households only once by year. Data for the* 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

Most portability moves appeared to occur not at admission to the HCVP, but after admission, while a household was already leased up.[10] Portability move households that exercised portability after admission to the voucher program accounted for 91.4 percent of portability move households from 1998 to 2005. The percentage of households exercising portability after admission varied from year to year, but it was lowest in 2005 when 87.5 percent of portability move households were households continuing participation in the HCVP.

In recent years, HUD has used certain HUD Form 50058 data to assess the degree to which households exercise portability in the HCVP (HUD, 2006).[11] According to unpublished numbers provided by HUD from a standard HUD monthly report[12] from February 2006, approximately 111,000 households—representing 6 percent of families that were currently receiving rental assistance—reported ever using portability. These statistics were based on PIC data, counting households who used portability based on data from HUD Form 50058 indicating whether a household had moved into a housing agency jurisdiction under portability. The processes we have used to determine portability moves also used MTCS/PIC data, but they included transaction data and geocoding information to examine portability moves through an 8-year period. As a result of examining and using more data fields, we find somewhat higher rates of portability movement than the standard HUD monthly report suggests.

These two statistics on portability—the first based on this study's estimates of instances of portability and the second based on the HUD Form 50058 indicator of portability showing households in the HCVP that ever ported—are difficult to compare. They are based on different time periods (1998 to 2005 compared with 2005 to 2006) and cover a different set of households (all HCVP households compared with initial and continuing participation households). Still, these statistics are similar in scale. We are confident in our estimates of portability moves, and we have used these records of accepted portability moves for the remainder of the analysis.

HCVP Portability Behavior and Household and Neighborhood Characteristics

In this section, we summarize characteristics of households that have exercised portability in the HCVP from 1998 to 2005. We also discuss neighborhood characteristics associated with portability moves.

[10] A combination of factors could account for the far larger portion of portability moves by continuing households. Of particular interest is whether the 1-year residency rule affects a household's decision to not exercise portability at admission but to use it after initial lease-up in the Housing Choice Voucher Program. With the data available for analysis, we have been unable to determine which households have delayed a portability move because of a 1-year residency rule. Housing agencies typically require that a household that is issued a housing voucher must reside in the housing agency's jurisdiction for at least the first year before porting to another jurisdiction. Households already residing in a housing agency's jurisdiction when a voucher is issued generally are allowed to exercise portability immediately.

[11] According to this guidebook, HUD's statistics on the number of households that have completed portability are based on HUD Form 50058 question 12d.

[12] This Public and Indian Housing Information Center (PIC) Mobility and Portability report, generated within HUD's PIC System, covered a 16-month period, which was the previous 12 months and the succeeding 4 months. In this case, the February 28, 2006, report covers March 1, 2005, to June 30, 2006. Only records with transaction types of new admission, annual reexamination, interim reexamination, portability move-in, and other change of unit are included in this PIC System report.

Exhibit 2 compares rates of portability moves by the race and by the ethnicity of the householder. Each year and for all years, we calculated the percent of White householders, African-American householders, and Hispanic householders in the HCVP that completed a portability move in the study period. White householders and African-American householders could be Hispanic, and Hispanic householders could be of any race. Overall, from 1998 to 2005, the proportion of households with a portability move was highest for African Americans. About 10 percent of households headed by an African-American householder completed a portability move, compared with 8.1 percent of White households and 8.6 percent of Hispanic households. Year by year, the comparative proportions of households by race or ethnicity were similar. The percent of portability moves among African-American households was highest, compared with White households and Hispanic households.

Exhibit 3 shows further data on portability moves by minority voucher holders. Minority voucher holders are defined as households in which the head of the household is African American, American Indian, Alaska Native, Asian, Native Hawaiian, Other Pacific Islander, or Hispanic. In the overall HCVP, minority households comprised 56.8 percent of all voucher households from 1998 to 2005. Higher proportions of minority households comprised portability move households during the same period. Overall, 63.7 percent of portability households were minority households.

To assess whether minority voucher holders moved to neighborhoods with lower rates of minorities, we examined the extent to which the census tract minority rate changed for minority households with a portability move. Overall, with portability moves, the average minority rate decreased from 58.4 percent in the preportability location to 55.8 percent in the portability move location. In fact, in every year from 1998 to 2005, with the exception of 1999, for minority voucher holders the average minority percent decreased from the preportability location to the portability move location.

Exhibit 4 shows our analysis of portability moves by extremely low-income voucher holders, defined as households with an adjusted annual income of less than 30 percent of area median income. The data in this exhibit, which examine the use of portability by extremely low-income

Exhibit 2

Rates of Portability Moves by Race and Ethnicity, 1998–2005

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of White householders with portability moves	4.9	3.3	2.7	2.6	3.0	2.3	2.2	1.5	8.1
Percent of African-American householders with portability moves	5.0	3.6	3.0	3.1	3.9	3.0	2.7	1.8	10.3
Percent of Hispanic householders with portability moves (may be of any race)	4.8	3.3	3.0	2.8	3.1	2.4	2.3	1.5	8.6

Notes: We excluded records with missing data on the race and ethnicity of the head of the household. Data in the 1998–2005 column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records included approximately 1.9 million White householders, 1.3 million African-American householders, and 493,000 Hispanic householders.

Source: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005

Exhibit 3

Portability Moves by Minority Voucher Holders, 1998–2005, and Changes in Neighborhood Minority Rate

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of portability moves by minority voucher holders	60.0	61.7	63.0	63.4	64.7	66.4	66.3	65.6	63.7
Minorities as a percent of all HCVP households	55.2	57.4	58.3	57.8	59.4	60.6	61.3	61.3	56.8
Average census tract minority rate									
Percent preportability location	60.3	58.6	60.3	59.7	58.8	58.3	56.1	57.1	58.4
Percent portability move location	59.8	59.5	59.4	57.0	54.3	55.0	53.2	51.8	55.8

HCVP = Housing Choice Voucher Program.

Notes: This exhibit includes only the portability moves by households that were not at admission to the HCVP. We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis by using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. We excluded records with missing data on the race and ethnicity of the head of household. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 182,000. For the category,* Minorities as a percent of all HCVP households*, the number of nonduplicated household analysis records was approximately 3.3 million.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

Exhibit 4

Portability Moves by Extremely Low-Income Voucher Holders, 1998–2005, and Changes in Neighborhood Poverty Rate

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of portability moves by extremely low-income voucher holders	89.0	88.5	88.3	87.5	87.9	91.2	90.3	90.4	88.8
Average census tract poverty rate									
Percent preportability location	18.4	18.1	18.7	19.0	18.7	18.7	18.1	18.0	18.5
Percent portability move location	17.7	17.4	17.6	17.0	15.9	15.8	15.6	15.3	16.3

HCVP = Housing Choice Voucher Program.

Notes: This exhibit includes only the portability moves by households that were not at admission to the HCVP. We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis by using records geocoded with 2000 Census census tracts; preportability locations and portability move locations needed to be different census tracts. We excluded records with missing data on annual household income. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 182,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

voucher holders, indicate, on average, a reduction in the percentage of low-income households between the new tract and the old one. Extremely low-income households made a very large portion of the portability moves. Overall, 88.8 percent of portability households were extremely low-income households. With portability moves, the average poverty rate decreased from 18.5 percent in the

preportability location to 16.3 percent in the portability move location. In every year from 1998 to 2005, the average poverty rate decreased from the preportability location to the portability move location.

Exhibits 5 through 8 present data on the characteristics of households that completed portability moves compared with household characteristics for the HCVP overall. (HCVP household characteristics include portability mover household characteristics.) Exhibit 5 shows the characteristics of the heads of household, including age, race, and ethnicity. We included elderly households in this analysis. On average, portability moves were completed by households with a younger head of household than in the HCVP overall. From 1998 to 2005, on average, the head of household among portability movers was 39.5 years old compared with the head of household in the overall HCVP, which was 43 years old. Portability move householders were also more likely to be African American and less likely to be White. Overall, 45.6 percent of portability households had an African-American head of household, compared with 39.8 percent of HCVP households overall. During the 8-year study period, 51.4 percent of portability move householders were White, compared with 56.6 percent of HCVP householders overall. Portability householders were also more likely to be minority (61.5 percent compared with 56.8 percent in the overall HCVP) and less likely to be Hispanic (14.1 percent compared with 14.8 percent in the overall HCVP).

Exhibit 6 compares the characteristics of portability move households and HCVP households by household type and the presence of children. Most HCVP households have children present. Each year, and overall from 1998 to 2005, portability move households were more likely to be households with children, compared with all HCVP households. Of the portability moves during the analysis period, 58.7 percent were by households with children, but not with an elderly head of household or disabled members. In the overall HCVP, 51 percent of households had children but not an elderly head of household or disabled members.

Exhibit 7 shows the length of time HCVP households have been in the program, defined as the difference between the effective date of the household record in the MTCS/PIC file and the date the household was admitted to the program. Households newer to the program appear somewhat more likely to make portability moves because their median HCVP tenure is about 5.4 months shorter when compared with all HCVP households. Based on our identification of portability movers, the median tenure for mover households in the HCVP was 2.63 years at the time of completing a portability move. From 1998 to 2005, the median tenure of all households in the HCVP was 3.08 years.

Exhibit 8 displays data on sources and levels of household annual income for portability movers and all HCVP households. Portability households are less likely to have wage income and slightly more likely to have welfare income. During the analysis period, 40.5 percent of HCVP households had wage income compared with 33.3 percent of portability movers. Although 24.2 percent of HCVP households had welfare income, 25.8 percent of portability mover households had welfare income. An examination of average income by specified sources, other than welfare, showed that average income was less for the portability households compared with all HCVP households.

Exhibit 5

Portability Households and All HCVP Households, 1998–2005, by Characteristics of Head of Household

	Portability Households									All HCVP Households								
	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Head of household	(age)									(age)								
Average age of head of household	40.2	39.9	39.1	39.0	38.5	38.4	38.8	39.8	39.5	43.4	43.6	43.5	43.1	43.4	43.3	43.8	44.4	43.0
Head of household by race	(percent)									(percent)								
White	56.6	53.6	52.6	50.8	48.1	47.6	47.9	49.4	51.4	57.4	55.7	55.0	55.1	54.0	53.2	52.8	53.3	56.6
African American	39.8	43.2	44.6	46.9	49.2	49.7	49.3	48.0	45.6	39.2	41.1	41.9	41.9	42.8	43.2	43.6	43.1	39.8
American Indian/ Alaska Native	1.1	1.0	1.1	0.9	1.0	0.8	1.0	0.8	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.1
Asian/Native Hawaiian/Other Pacific Islander	2.5	2.2	1.7	1.3	1.7	1.8	1.9	1.9	1.9	2.5	2.3	2.2	2.1	2.2	2.6	2.7	2.8	2.5
Hispanic householder	(percent)									(percent)								
Percent Hispanic	13.5	14.1	15.4	14.4	13.6	14.1	14.6	14.7	14.1	13.9	14.6	14.7	14.2	14.8	15.2	15.5	16.0	14.8
Minority householder	(percent)									(percent)								
Percent minority	55.6	59.3	61.5	62.4	64.3	65.2	65.5	64.2	61.5	55.2	57.4	58.3	57.8	59.4	60.6	61.3	61.3	56.8

HCVP = Housing Choice Voucher Program.

Notes: We excluded from the applicable analysis records with missing data on the age, race, or ethnicity of the head of household. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated portability household analysis records was approximately 301,000. The number of nonduplicated HCVP household analysis records was approximately 3.3 million.*

Source: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005

Exhibit 6

Portability Households and All HCVP Households, 1998–2005, by Household Types and Presence of Children

	Portability Households									All HCVP Households								
	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Type of household	(percent)									(percent)								
Elderly, no children	10.3	9.4	8.4	7.8	7.1	7.2	7.7	8.7	8.8	15.5	15.6	15.4	14.7	14.9	14.7	15.1	15.9	14.7
Disabled, no children	13.1	13.3	12.6	14.5	13.6	14.0	13.8	15.3	13.8	14.2	14.3	13.4	16.1	16.6	16.7	17.0	17.5	15.2
Other, no children	18.1	13.9	11.8	7.9	6.0	6.3	6.3	6.5	10.2	12.1	10.3	10.9	9.7	8.3	8.6	8.9	9.1	11.7
Elderly with children	0.6	0.7	0.7	0.9	0.9	0.8	0.8	0.9	0.8	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9
Disabled with children	5.7	6.3	2.9	8.8	9.5	9.5	9.6	10.1	7.7	6.1	5.9	2.3	7.3	7.7	7.7	7.8	7.8	6.5
Other with children	52.1	56.4	63.6	60.1	62.8	62.1	61.7	58.5	58.7	51.1	53.0	57.0	51.4	51.6	51.3	50.1	48.6	51.0
Children present, by age	(percent)									(percent)								
0–3 years	20.2	21.8	25.4	26.2	27.7	28.1	27.4	25.1	24.5	18.1	19.2	20.4	20.8	21.0	21.2	19.9	18.6	20.4
4–5 years	15.5	16.5	17.7	18.2	19.5	20.4	20.4	19.6	18.0	13.9	14.0	13.8	13.8	14.2	14.6	14.6	14.2	14.6
6–12 years	38.7	42.5	43.9	45.5	47.4	46.3	46.3	45.1	43.6	37.1	37.9	37.7	36.6	36.7	36.1	35.7	34.8	34.7
13–17 years	21.6	23.4	23.5	25.7	27.4	26.7	27.7	27.9	25.3	23.5	24.1	23.8	23.2	24.1	24.1	24.7	24.8	22.9
Any child under 18 years	58.5	63.4	67.2	69.8	73.2	72.5	72.2	69.5	67.2	58.1	59.8	60.3	59.6	60.3	60.0	59.0	57.4	58.4

HCVP = Housing Choice Voucher Program.

Notes: We excluded from the applicable analysis records with missing data on type of household. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated portability household analysis records was approximately 301,000. The number of nonduplicated HCVP household analysis records was approximately 3.3 million.*

Source: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005

Exhibit 7

Portability Households and All HCVP Households by Length of Time in the HCVP, 1998–2005

	Portability Households									All HCVP Households								
	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Time in program	(years)									(years)								
Average	2.48	2.62	3.15	3.79	3.83	3.92	4.48	5.04	3.70	4.13	4.44	4.58	4.51	4.66	4.73	5.14	5.53	4.71
Median	1.50	1.82	2.17	2.76	2.81	2.83	3.33	3.95	2.63	2.89	3.00	3.00	3.00	3.04	3.00	3.49	4.00	3.08

HCVP = Housing Choice Voucher Program.

Notes: For this analysis, the minimum amount of time in the HCVP was 0 years, and the maximum amount of time in the HCVP was 30 years. We excluded values out of this range caused by invalid or missing data on program admission date or effective date of the record. Data for the 1998–2005 *column are based on a nonduplicated count of the analysis households during the entire time period. The number of nonduplicated portability household analysis records was approximately 280,000. The number of nonduplicated HCVP household analysis records was approximately 3.1 million.*

Source: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005

Exhibit 8

Portability Households and All HCVP Households, 1998–2005, by Sources and Levels of Household Income

	Portability Households									All HCVP Households								
	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Source of income	(percent)									(percent)								
Wages	32.2	30.8	32.8	31.5	33.5	32.8	34.2	33.2	33.3	37.6	38.1	38.6	36.9	36.9	37.9	38.1	38.6	40.5
Welfare	26.9	23.9	23.9	23.0	25.2	28.1	30.4	32.0	25.8	25.4	22.1	20.5	18.4	19.3	21.7	26.1	29.3	24.2
SSI	22.1	23.4	25.3	26.7	27.9	29.7	29.2	31.2	26.6	26.4	27.4	28.2	27.4	29.3	30.7	31.4	31.9	27.5
SS/pension	20.5	20.4	21.5	22.1	22.3	23.5	24.8	27.4	22.9	27.7	27.7	28.0	27.1	28.1	29.0	29.8	30.9	27.7
Other source of income	18.7	17.6	19.1	21.4	26.1	29.5	31.5	31.9	24.4	20.8	18.9	19.4	20.1	22.7	25.2	27.1	28.6	25.7
Average annual income by source	(US$)									(US$)								
Wages	12,624	12,618	13,039	13,311	13,948	13,860	14,148	14,483	13,601	12,199	12,374	12,757	13,046	13,332	13,605	14,025	14,473	14,620
Welfare	4,938	4,726	4,848	4,851	4,898	4,960	5,063	5,020	4,906	4,422	4,324	4,340	4,350	4,414	4,443	4,457	4,351	4,399
SSI	5,711	5,656	5,812	6,019	6,302	6,627	6,587	6,613	6,199	5,390	5,434	5,543	5,719	5,964	6,190	6,363	6,496	6,244
SS/pension	7,191	6,920	7,008	7,217	7,435	7,485	7,759	7,914	7,443	7,220	7,167	7,295	7,527	7,749	7,920	8,137	8,383	8,185
Other source of income	3,536	3,889	3,985	4,253	4,640	4,743	4,606	4,599	4,375	3,316	3,711	3,847	4,027	4,353	4,458	4,386	4,409	4,325

HCVP = Housing Choice Voucher Program.

Notes: We excluded source values of 0 in the Average annual income by source *category. Dollar values were not adjusted for inflation. Data for the* 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 294,000. The number of nonduplicated HCVP household analysis records was approximately 3.3 million.*

Source: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005

Exhibit 9 shows data on how far participants typically move when exercising portability. Distance calculations were completed using the latitude and longitude data provided in the MTCS/PIC data. Because we found portability moves that appeared not to represent a change in residence location, we decided to limit the distance calculations to moves of at least one-quarter mile. This same rule was used in the HCVP mobility study (Feins and Patterson, 2005) to determine household moves. We also restricted this analysis to portability moves within the 48 contiguous United States; thus, we excluded portability moves to or from Alaska, Hawaii, or Puerto Rico in this analysis.

With these restrictions, we have estimated the average portability move to be more than 200 miles, with a median distance of 25 miles. About one-third of these portability moves were of at least 100 miles; however, 19.4 percent of households overall made portability moves of less than 5 miles, 13.7 percent made moves of between 5 and 10 miles, and 16.9 percent made moves of between 10 and 25 miles.

Exhibit 10 compares portability moves by geographic jurisdiction, including the percentages that were moves between metropolitan areas and between states. The HCVP primarily operates in metropolitan areas. When examining the portability moves within metropolitan areas, we observed that households that exercised portability were more likely to stay in the same metropolitan area. More than 40 percent of portability moves were within the same metropolitan area, although a marked decline was apparent in the proportion of moves, 46.0 to 36.6 percent, within the same metropolitan area from 1998 to 2005. During the period covered by the study, 37.3 percent of

Exhibit 9

Portability Moves by Distance, 1998–2005

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Distance moved	(miles)								
Average	196	205	221	223	218	230	229	243	219
Median	19	21	24	28	27	28	28	31	25
Range	(percent)								
0.25 to 4.99 miles	25.8	23.7	20.8	18.7	17.7	16.7	17.7	15.8	19.4
5 to 9.99 miles	13.5	13.8	13.5	12.8	13.8	13.6	13.5	13.5	13.7
10 to 24.99 miles	15.2	15.6	16.1	17.0	17.5	17.9	17.0	17.5	16.9
25 to 49.99 miles	8.5	8.7	8.7	9.9	9.7	9.3	9.2	9.6	9.3
50 to 99.99 miles	8.2	7.8	8.4	8.7	8.2	8.5	8.6	8.5	8.4
100 miles or more	28.8	30.4	32.6	32.8	33.0	33.9	34.0	35.0	32.3

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Distance moved was based on calculations using the latitude and longitude data for geocoded records. Only moves within the 48 contiguous United States and of at least one-quarter mile are included in these calculations. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 144,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

Exhibit 10

Portability Moves by Geographic Jurisdiction, 1998–2005

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
	(percent)								
Within same metropolitan area	46.0	44.8	41.8	39.8	40.7	40.3	39.0	36.6	41.3
Metropolitan area to different metropolitan area	32.6	33.6	36.6	37.7	37.9	39.6	40.2	43.0	37.3
Metropolitan area to nonmetropolitan area	6.3	6.1	6.4	6.1	5.5	5.2	5.6	6.8	5.8
Nonmetropolitan area to metropolitan area	9.0	9.7	9.3	10.2	10.5	10.4	10.4	9.2	10.2
Nonmetropolitan area to nonmetropolitan area	6.0	5.8	5.8	6.2	5.5	4.5	4.8	4.5	5.5
Change in state	25.6	27.1	28.8	30.2	30.0	30.8	30.9	32.2	29.2

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 146,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

households making portability moves changed from one metropolitan area to another; the proportion of households moving from one metropolitan area to another in that period increased.

Portability households were more likely to move from a nonmetropolitan area to a metropolitan area than from a metropolitan area to a nonmetropolitan area. Each year and overall, about 10 percent of portability movers moved from a nonmetropolitan area to a metropolitan area and about 6 percent moved in the other direction. Portability moves within and among nonmetropolitan areas equaled 5.5 percent of portability households from 1998 to 2005.

Portability moves across state boundaries can involve a portability move of any kind. (That is, they can originate in a metropolitan area and then move within the same metropolitan area, move to a different metropolitan area, or move to a nonmetropolitan area; or, they can originate in a nonmetropolitan area and then move to a metropolitan area or another nonmetropolitan area.) When examining the last row of exhibit 10, moves between states also appears to have increased from 1998 to 2005. In 1998, 25.6 percent of households completing a portability move went from one state to another; by 2005, 32.2 percent of households completing a portability move went from one state to another. For the full study period, slightly more than 29 percent of households completing a portability move crossed state boundaries with their portability moves.

Exhibit 11 focuses on the portability moves within the same metropolitan area, across different metropolitan areas, and involving nonmetropolitan areas by examining city locations compared with suburb locations. (The summed proportions of portability moves by categories shown in exhibit 11 may differ slightly from exhibit 10 because data on central city, suburb, and

Exhibit 11

Portability Moves by Geographic Jurisdiction and Central City and Suburban Areas, 1998–2005

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Within the same metropolitan area					(percent)				
Central city to central city	14.5	12.1	10.1	8.9	7.7	7.2	7.0	5.6	8.9
Central city to suburb	8.0	8.8	8.3	7.7	6.9	8.4	8.2	7.6	8.1
Suburb to central city	9.6	10.5	11.0	10.5	12.5	11.7	11.8	11.2	11.3
Suburb to suburb	13.6	13.4	12.7	12.6	13.6	13.1	12.1	12.1	12.9
Across different metropolitan areas					(percent)				
Central city to central city	11.5	11.9	12.7	12.7	12.7	13.1	12.2	12.9	12.2
Central city to suburb	6.2	6.8	6.8	6.7	6.2	6.8	7.6	8.2	6.8
Suburb to central city	8.7	7.9	9.6	10.2	10.9	11.2	11.1	11.9	10.2
Suburb to suburb	6.4	6.9	7.5	8.2	8.0	8.6	9.3	10.0	8.2
Involving nonmetropolitan locations					(percent)				
Central city to nonmetropolitan area	5.2	5.8	5.5	5.8	5.9	5.6	5.5	4.8	5.7
Suburb to nonmetropolitan area	3.9	4.0	4.0	4.4	4.6	4.8	4.9	4.4	4.5
Nonmetropolitan area to central city	3.5	3.3	3.2	3.3	2.9	2.6	2.8	3.1	2.9
Nonmetropolitan area to suburb	2.9	2.8	2.8	2.8	2.6	2.6	2.9	3.7	2.8
Nonmetropolitan area to nonmetropolitan area	6.1	5.9	5.9	6.2	5.5	4.5	4.8	4.5	5.5

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Data on central city, suburb, and nonmetropolitan areas in Puerto Rico were unavailable for this analysis. Within the same metropolitan area, a portability move from central city to central city may be a portability move within the same city. A suburb is a location within a metropolitan area that is not part of a central city. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 146,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

nonmetropolitan areas in Puerto Rico were not compiled and available for this analysis.) In this analysis, a suburb location is any area in a metropolitan area that is not a central city. Across all types of portability moves, voucher households were most likely to move from a suburb location to a suburb location within the same metropolitan area. Nearly 13 percent of portability moves were between suburb locations in the same metropolitan area. The next most likely type of move was across different metropolitan areas, from one central city to another. Slightly more than 12 percent of portability moves were between central cities in different metropolitan areas.

Some trends are evident in exhibit 11 across the categories of portability moves by geographic jurisdiction and by central city and suburb locations. As noted earlier, from 1998 to 2005 the proportion of portability moves occurring within the same metropolitan area decreased. Much of the decrease appears in moves from a central city location to a central city location within the

same metropolitan area. These moves decreased from 14.5 percent of all portability moves in 1998 to 5.6 percent of all portability moves in 2005. The only type of portability moves that increased within the same metropolitan area involved suburb-to-central city moves, which increased from 9.6 percent in 1998 to 11.2 percent in 2005.

Portability moves across metropolitan areas generally increased from 1998 to 2005, including increases for all types of central city and suburb portability moves. Portability moves that crossed metropolitan area boundaries increased from 6.4 to 10.0 percent across suburb locations, from 8.7 to 11.9 percent from suburb areas to central cities, from 6.2 to 8.2 percent from central cities to suburb areas, and from 11.5 to 12.9 percent from one central city to another central city.

Using Census 2000 data at the census tract level, we show in exhibit 12 the neighborhood characteristics of the preportability location and portability move location. We reported similar data in previous analysis tables for certain groups of portability movers, including minority households and households with extremely low incomes. Those analyses, when compared with the preportability location, showed that the average census tract poverty rate and average minority rate were lower in the portability move location. Similar results appear in the tabulation for all portability movers. Exhibit 12 compares the census tract poverty rate and minority rate of the preportability location and portability move location. On average, from 1998 to 2005, the census tract poverty rate decreased from 18.3 to 16.3 percent with a portability move. Average poverty rates in the portability move locations decreased from 17.6 percent in 1998 to 15.3 percent in 2005. The average minority rate decreased from 45.9 to 43.8 percent. No consistent increase or decrease in the average census tract minority rate in the preportability locations is apparent across the analysis period, although, for the most part, the minority rate decreased from year to year with the portability locations.

When we compared the preportability locations to the portability move locations during the study period, we found the neighborhood average percentage of families headed by a single female decreased from 26.9 to 25.4 percent. When examining only the portability move locations from 1998 to 2005, we found that the census tract average percentage of families headed by a single female decreased from 26.2 to 24.4 percent. The average percentage of renter-occupied units decreased from 47.5 percent in the preportability location to 44.6 percent in the portability move location. When we analyzed the portability move locations from 1998 to 2005, we found that the census tract average percentage of renter-occupied units decreased from 46.4 to 43.0 percent.

Overall, it appears that HCVP households that have exercised a portability move have been able to move to somewhat better neighborhoods with lower rates of poverty and lower concentrations of minorities and families headed by single females. The new destination neighborhoods for HCVP households also have had lower concentrations of renter-occupied units. In fact, portability households were moving to continuously better neighborhoods from 1998 to 2005, although, overall, the magnitude of these changes was small.

Exhibit 12

Neighborhood Characteristics: Preportability Locations and Portability Move Locations, 1998–2005

	Preportability Location									Portability Move Location								
	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Poverty rate																		
Average	18.5	18.0	18.6	18.8	18.5	18.5	18.0	17.6	18.3	17.6	17.3	17.5	17.0	15.9	15.8	15.5	15.3	16.3
Minority rate																		
Average	46.9	45.7	47.2	46.6	46.6	46.8	45.0	44.4	45.9	45.1	45.7	46.1	44.7	43.2	44.2	42.7	41.3	43.8
Percent of families headed by a single female																		
Average	26.6	26.5	27.2	27.1	27.5	27.6	26.7	26.4	26.9	26.2	26.5	26.5	25.9	25.2	25.2	24.8	24.4	25.4
Percent of renter-occupied units																		
Average	48.2	47.3	48.3	47.8	47.7	48.1	47.0	47.1	47.5	46.4	46.3	46.3	45.6	44.4	44.2	43.5	43.0	44.6

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Data for the 1998–2005 column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 181,000.

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

HCVP Portability Moves and Area Characteristics

In this section, we discuss some additional analyses of portability moves made from 1998 to 2005. We examine the portability moves originating in the 25 metropolitan areas most highly segregated by race and the portability moves originating in the 25 metropolitan areas most segregated by income. We also examine portability moves in relation to local area HCVP subsidy costs.

Portability Moves in Racially Segregated MSAs

Exhibit 13 shows information about portability moves by voucher holders who were initially located in one of the 25 U.S. metropolitan areas most segregated by race. As described earlier, to complete this analysis we relied on the racial housing pattern analyses produced by the U.S. Census Bureau (Iceland, Weinberg, and Steinmetz, 2002). Those analyses produced segregation indices for metropolitan areas, using census tracts or block groups as the unit of analysis. We chose the most commonly used index, the dissimilarity index. Exhibit A-1 lists the 25 metropolitan areas with the highest dissimilarity index scores based on racial segregation of African Americans and a metropolitan area population of at least 250,000.

Portability moves by households originally living in these 25 metropolitan areas accounted for 14.6 percent of all portability moves from 1998 to 2005. To assess whether these households move to more or less segregated areas, we examined the minority rate and percentage of African Americans in the preportability locations compared with the portability move locations. For both measures,

Exhibit 13

Portability Moves by Voucher Holders Initially Located in One of the 25 Metropolitan Areas Most Segregated by Race, 1998–2005, and Changes in Neighborhood Minority Rate and Percentage of African Americans

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of portability moves by voucher holders in highly segregated metropolitan areas	14.6	11.9	14.1	13.7	15.4	15.1	14.9	16.9	14.6
Average census tract minority rate									
Percent preportability location	61.0	56.4	62.9	65.9	67.1	65.5	62.3	63.2	63.3
Percent portability move location	52.3	52.6	54.9	51.9	51.4	51.8	49.0	48.5	51.0
Average census tract percent African American									
Percent preportability location	38.6	37.0	40.8	39.7	42.0	43.0	40.0	38.8	40.0
Percent portability move location	31.9	33.3	34.8	32.3	31.6	32.4	29.3	28.4	31.3

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability move location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Exhibit A-1 lists the 25 most segregated metropolitan areas by race used in this analysis. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 182,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3; Housing Patterns Data, 2000 Decennial Census

rates consistently decreased each year and overall. The overall average minority rate decreased from 63.3 to 51.0 percent. The overall average percentage of African Americans decreased from 40.0 to 31.3 percent. In general, it appears that the households porting from highly segregated areas moved to less segregated neighborhoods, shown by the decrease in census tract minority rate.

Considering that this analysis focuses on areas that are highly segregated by race, it is not surprising that the overall average minority rate for the preportability location and portability move location in highly segregated areas is higher than the same measures for portability movers in all areas. The average minority rate for all portability households decreased from 45.9 percent in the preportability location to 43.8 percent in the portability move location (exhibit 12). The average census tract minority rate for portability move locations of households originating in one of the highly segregated areas was still much higher than even the preportability locations of porting households overall.

In exhibit 14, we examine more specifically the minority households in these highly segregated metropolitan areas. About 80 percent of portability move households in areas that are highly segregated by race were headed by minority group members.

Distinct changes in the minority rate are apparent when examining preportability locations and portability move locations. Exhibit 14 includes data on portability households that originated in one of the 25 metropolitan areas highly segregated by race, but the exhibit does not control for the portability move location. In other words, although a household in this analysis may have started in a highly segregated area, the household could have ported to an area that was not highly segregated. For minority households originating in one of the 25 metropolitan areas segregated by race, the average minority rate in the preportability location was 71.7 percent. As shown in exhibit 3, for all minority households, the average minority rate in the preportability location was 58.4 percent. The average minority rate of portability move locations for minority households originating in one

Exhibit 14

Portability Moves by Minority Voucher Holders Initially Located in One of the 25 Metropolitan Areas Most Segregated by Race, 1998–2005, and Changes in Neighborhood Minority Rate

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of portability moves by minority voucher holders in highly segregated metropolitan areas	77.2	77.1	80.4	79.7	81.7	82.1	81.1	81.0	79.8
Average census tract minority rate									
Percent preportability location	71.0	66.6	71.2	74.1	74.6	72.9	69.8	71.4	71.7
Percent portability move location	61.2	62.4	62.4	58.2	57.4	57.5	54.9	54.5	57.9

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Exhibit A-1 lists the 25 most segregated metropolitan areas by race used in this analysis. We excluded records missing data on the head of household race and ethnicity. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 21,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

of the highly segregated areas was 57.9 percent, and, for minority households overall, the average minority rate in the portability move locations was 55.8 percent. Compared with the large difference in the minority rates in the preportability locations, the minority rates in the portability move locations were similar.

Minorities who ported from all areas and minorities who ported from areas highly segregated by race could, with portability, move to neighborhoods with similar average minority rates (although the households from the highly segregated areas appear to have moved to areas with slightly higher rates of minorities).

Portability Moves in MSAs Segregated by Income

In this section, we use a different measure of segregation, namely segregation by income, to discuss our analysis. We calculated this metropolitan area segregation index using Census 2000 census tract data on families. Using a dissimilarity index, we measured levels of segregation for low-income and high-income families. We defined low-income families as having an annual income of less than 30 percent of the metropolitan area median income. We defined high-income families as having an annual income of more than $200,000. Exhibit A-2 lists the 25 metropolitan areas with the highest levels of segregation by income.

Exhibit 15 shows the change in the neighborhood poverty rate for porting households that originated in one of the 25 metropolitan areas with the highest levels of segregation by income. From 1998 to 2005, 21.9 percent of households completing portability moves originated in one of those metropolitan areas. The average neighborhood poverty rate in the originating location was 20.6 percent, and the average neighborhood poverty rate in the portability move location was 17.2 percent. These average poverty rates are higher than the neighborhood poverty rates for portability movers

Exhibit 15

Portability Moves by Voucher Holders Initially Located in One of the 25 Metropolitan Areas Most Segregated by Income, 1998–2005, and Changes in Neighborhood Poverty Rate

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Percent of portability moves by voucher holders in highly segregated metropolitan areas	24.7	20.8	22.2	22.0	21.4	21.9	21.5	22.5	21.9
Average census tract poverty rate									
Percent preportability location	21.5	20.1	20.9	21.0	21.0	20.5	19.7	20.4	20.6
Percent portability move location	19.8	19.4	19.1	18.0	16.6	16.4	15.7	15.7	17.2

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. Exhibit A-2 lists the 25 most segregated metropolitan areas by income used in this analysis. We excluded records missing data on annual household income. Data for the 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 146,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3

overall. As shown in exhibit 12, the originating location average poverty rate was 18.3 percent and the portability move location poverty rate was 16.3 percent.

Changes in the Level of Segregation With Portability Moves

In exhibit 16, we show the degree to which a portability move resulted in a move to a more or less segregated metropolitan area. Analysis was not limited to only the 25 metropolitan areas with the highest levels of either racial or income segregation. We included porting households originating in a large metropolitan area (a population of at least 250,000). To compare how each metropolitan area ranked with other metropolitan areas, we used specific measures of segregation for 182 large metropolitan areas. Possible options for portability moves originating in a large metropolitan area included moving to a more segregated MSA, staying in the originating MSA (no change in the level of segregation), moving to a less segregated MSA, moving to a small MSA, or moving to a nonmetropolitan area.

Exhibit 16

Portability Moves by Households Initially Located in a Large Metropolitan Area, 1998–2005, and Measures of Metropolitan Area Racial Segregation and Income Segregation

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Portability moves by measures of racial segregation	(percent)								
Moved to more segregated MSA	14.4	15.7	15.9	16.0	16.0	18.5	18.5	18.4	16.6
Moved in the MSA (same level of segregation)	57.4	56.1	52.7	50.4	51.9	50.8	49.5	45.2	52.2
Moved to less segregated MSA	18.5	18.6	21.7	23.4	22.7	22.3	22.9	25.5	21.8
Moved to small MSA	3.9	3.9	4.2	4.7	4.5	3.7	4.0	4.7	4.1
Moved to nonmetropolitan area	5.8	5.8	5.6	5.6	4.9	4.8	5.2	6.2	5.3
Portability moves by measures of income segregation	(percent)								
Moved to more segregated MSA	14.9	16.6	17.3	17.8	17.3	19.2	19.7	20.2	17.8
Moved in the MSA (same level of segregation)	57.4	56.1	52.7	50.4	51.9	50.8	49.5	45.2	52.2
Moved to less segregated MSA	18.0	17.7	20.3	21.6	21.4	21.6	21.6	23.7	20.6
Moved to small MSA	3.9	3.9	4.2	4.7	4.5	3.7	4.0	4.7	4.1
Moved to nonmetropolitan area	5.8	5.8	5.6	5.6	4.9	4.8	5.2	6.2	5.3

MSA = metropolitan statistical area.

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. We completed the analysis using records geocoded with 2000 Census census tracts; preportability location and portability move location needed to be different census tracts. The exhibits in the appendix list information on the measures of segregation used in the analysis. Large metropolitan areas have populations of at least 250,000. Portability moves to areas with the same level of segregation are considered as moves in the same metropolitan area. Data for the 1998–2005 column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 107,000.

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; Census 2000 Summary File 3; Housing Patterns data, 2000 Decennial Census

Slightly more than half of the porting households from large metropolitan areas stayed within their MSAs (52.2 percent). When examining either measures of racial segregation or measures of segregation by income, the rates of movement to a more segregated or a less segregated area were very similar. When examining measures of racial segregation (exhibit 16, upper panel), during the study period 16.6 percent of porting households moved to a more segregated metropolitan area and 21.8 percent moved to a less segregated metropolitan area. When examining measures of income segregation (exhibit 16, lower panel), during the study period 17.8 percent of porting households moved to a more segregated metropolitan area and 20.6 percent moved to a less segregated metropolitan area.

Portability Moves in High-Cost and Low-Cost Areas

Exhibit 17 shows information on the portability moves made from higher cost and lower cost jurisdictions. Jurisdiction was based on the reporting housing agency. Jurisdiction cost data analyzed were PHA average monthly per-unit costs, including subsidies and administrative fees, for April 2005 to March 2006 from HUD's Voucher Management System.

The preponderance of portability moves was made from higher cost to lower cost jurisdictions. From 1998 to 2005, an average of 60.7 percent of portability moves were made from higher cost to lower cost jurisdictions. With these portability moves, households were moving to areas where the average subsidy cost was lower, on average, by 11.1 percent. The average monthly subsidy cost was $580 in the preportability location and $505 in the portability move location.

For the 39.3 percent of portability moves from lower cost to higher cost jurisdictions, households were moving to areas where the average subsidy cost was higher, on average, by 35 percent. The average monthly subsidy cost was $478 in the preportability location and $621 in the portability move location.

Considering that most portability moves were from higher cost to lower cost jurisdictions, it appears that portability has resulted in savings of subsidy costs to HUD; however, the percentage of moves from lower cost to higher cost areas increased over time, from 21 percent in 1998 to 44.1 percent in 2005, with a high of 47.8 percent in 2003. Although moves from lower cost to higher cost areas imply higher subsidy costs to HUD, the moves also show that, with portability, households with HCVP assistance are increasingly able to move to higher rent markets.

Determinants of HCVP Portability Moves

In addition to conducting the analyses described earlier, we undertook a multivariate analysis focused on identifying the factors associated with portability moves. We were particularly interested in exploring whether households with certain demographic characteristics—such as race, ethnicity, household composition, sources of income, and length of HCVP stay—statistically are more likely to exercise the portability move option. Multivariate analysis is helpful because it enables us to examine the effect of each characteristic on the likelihood of a portability move, while holding all other factors constant.

Exhibit 17

Portability Moves and Lower and Higher Cost Jurisdictions, 1998–2005
(Based on Average Monthly per-Unit HCVP Subsidy Costs)

	1998	1999	2000	2001	2002	2003	2004	2005	1998–2005
Higher to lower cost jurisdictions									
Percent of all portability moves	79.0	67.5	61.5	59.2	53.6	52.2	52.8	55.9	60.7
Average subsidy cost					(US$)				
Preportability location	536	568	581	590	600	612	614	620	580
Portability move location	496	509	503	495	503	520	519	517	505
Percent change in average subsidy cost with move									
Average	– 5.4	– 8.6	– 11.6	– 14.1	– 14.6	– 13.6	– 14.0	– 15.0	– 11.1
Largest decrease	– 77.1	– 77.3	– 73.9	– 77.0	– 78.1	– 79.5	– 78.7	– 79.6	– 79.6
Lower to higher cost jurisdictions									
Percent of all portability moves	21.0	32.5	38.5	40.8	46.4	47.8	47.2	44.1	39.3
Average subsidy cost					(US$)				
Preportability location	470	465	471	469	479	487	486	493	478
Portability move location	611	625	611	604	623	633	631	622	621
Percent change in average subsidy cost with move									
Average	+ 35.0	+ 39.9	+ 34.9	+ 33.5	+ 34.7	+ 35.2	+ 34.8	+ 30.8	+ 35.0
Largest increase	+ 300	+ 341	+ 421	+ 457	+ 362	+ 425	+ 519	+ 478	+ 519

Notes: This exhibit includes only the portability moves by households that were not at admission to the Housing Choice Voucher Program (HCVP). We excluded portability moves at admission to the HCVP because of a lack of information on the preportability location. Jurisdiction was based on the recording housing agency. PHA average monthly per-unit costs include subsidies and administrative fees. The Lower to higher cost jurisdictions *column includes records in which the percentage of change in the originating and receiving housing agencies' average HCVP subsidy costs was greater than or equal to zero. For those records, data in the* Largest increase *row present the maximum percentage of change (increase) in the average subsidy cost associated with a portability move from a lower to a higher cost jurisdiction. The* Higher to lower cost jurisdictions *column includes records in which the percentage of change in the originating and receiving housing agencies' average HCVP subsidy costs was less than zero. For those records, the* Largest decrease *row presents the maximum percentage of change (decrease) in average subsidy cost associated with a portability move from a higher to a lower cost jurisdiction. Data for the* 1998–2005 *column are based on a nonduplicated count of analysis households during the entire time period. The number of nonduplicated household analysis records was approximately 189,000.*

Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data, 1997–2005; public housing agency cost per unit data (Voucher Management System, April 2005–March 2006)

The outcome or dependent variable in this analysis is a 0/1 dummy variable indicating whether a household has used the option of a portability move in year *T*. A household's decision to make a portability move was modeled statistically using a logistic regression model with repeated observations for the same set of household units (Wooldridge, 2001). Formally, the model specification is:

$$\log\left(\frac{P_{it}}{1-P_{it}}\right)=\alpha + X_{i1}\beta_1 + X_{i2}\beta_2 + X_{i3}\beta_3 + X_{i4}\beta_4 \quad (1)$$

where

P_{it} represents the probability that household *i* has used the portability move option at year *t*;

α is the constant term;

X_{i1} is a set of flags for the entry year (cohort);

X_{i2} is a vector of household demographic variables;

X_{i3} is a set of geographic covariates;

X_{i4} is a continuous variable measuring the number of years household *i* remains in the program at year *t*; and

β_1, β_2, β_3, and β_4 are vectors of regression coefficients.

The following set of household characteristics and program covariates are included in the model:

- Disability status of household head.
- Elderly status of household head.
- Race/ethnicity of household head.
- Presence of prime-age adults (ages 18–49) in the household.
- Presence of children by age group in the household.
- Total number of household members.
- Whether welfare income accounts for more than half of total household income.
- Whether the household was previously homeless.
- Length of stay in the HCVP (in years) and its squared term.
- Program entry year (cohort).

The set of geographic covariates included dummy variables indicating the census division of a household's location; whether the household was located in the central city, suburb, or nonmetropolitan areas; and the census tract poverty rate (in categories). These variables were intended to measure a household's baseline location (before the portability move, if any).

Unlike ordinary regression models, which include one observation per household (or person), this type of logit model allows for multiple observations for the same household; therefore, the data should be organized in a household-period format. For example, the first observation for household *A* in the data would describe the characteristics of household *A* in the first year of program participation; the second observation would show the characteristics for household *A* in the second year; and so on. Thus, time-varying characteristics, such as household income, household size, and the presence of children, can be incorporated into the model.

Considering the size of the MTCS/PIC database and the type of analysis involved, we conducted the modeling on a 10-percent random sample of the households included in the 1997–2005 data extract. We constructed an analysis file consisting of households that entered the HCVP in 1997 or later. Some of these households may have had spells of housing assistance before 1997 but, at some point, they exited the program and then reentered during the 1997-to-2005 period. To avoid bias in the sample (which would result from truncated household records), we excluded households with ongoing housing assistance that entered before 1997 and never left. This sampling scheme also enabled us to focus on the population of households that entered the program since 1997.[13]

Because coefficient estimates associated with a logit model are difficult to interpret, researchers often convert them into an "odds ratio" format. Statistically, an odds ratio is defined as the probability of the event occurring divided by one minus the probability of the event. In other words, an odds ratio measures the relative likelihood that the effect of a factor will influence the outcome event (portability move, in this case). Variables with an odds ratio estimate of greater than one are interpreted as having a positive effect on the decision a household makes to use the portability move option, while variables with an odds ratio estimate of less than one suggest that the presence of these variables decreases the likelihood of portability moves.

Exhibit 18 lists the logit model's odds ratio estimates of a portability move. Most of the estimates are statistically significant and have the expected sign/direction. The following summary of observations is based on the model:

- No evidence indicates that a head of household with disabilities will use the portability move differently than other households would.
- Compared with other households, households headed by elderly people are less likely (odds of 0.55 times which is statistically significant) to exercise the portability move option, everything else being equal.
- Compared with other households, households headed by non-Hispanic African Americans are more likely (odds of 1.3 times) to use the portability move option.
- The presence of prime-age adults (ages 18 to 49) in a household is associated with a slightly higher likelihood of a portability move (odds of 1.086 times), holding all other factors constant.
- Households with preschool-aged children (ages 0 to 5) are more likely (odds of 1.4 times) to exercise portability than households with similar demographic and location characteristics. The presence of children in older age groups has no effect on the probability of portability moves.
- A household that has welfare income accounting for more than half of its income has a higher likelihood (1 percent, which is statistically significant) of making a portability move than other household types do.

[13] Portability moves were determined and analyzed for the period of 1998 to 2005. Household data from 1997 were included to help determine if a 1998 action was a portability move.

Exhibit 18

Coefficient Estimates From the Logistic Model of a Portability Move

	Odds Ratio
Household characteristics	
Household head is disabled	1.006
	(0.037)
Household head is elderly	0.550 ***
	(0.037)
Household head is non-Hispanic White	Reference
Household head is non-Hispanic African American	1.349 ***
	(0.044)
Household head is Hispanic	1.050
	(0.047)
Household head is other races/ethnicities	0.861 *
	(0.076)
Presence of prime-age adults (ages 18–49)	1.086 *
	(0.052)
Presence of preschool-aged children (ages 0–5)	1.440 ***
	(0.052)
Presence of young children (ages 6–12)	1.000
	(0.035)
Presence of teenagers (ages 13–17)	0.916 **
	(0.036)
Number of persons in household	0.993
	(0.014)
Welfare income accounted for more than half of total household income	1.366 ***
	(0.047)
Previously homeless	0.927
	(0.088)
Program characteristics	
Length of HCVP stay (in years)	3.131 ***
	(0.118)
Length of HCVP stay squared	0.860 ***
	(0.005)
1997 entering cohort	Reference
1998 entering cohort	0.552
	(0.243)
1999 entering cohort	0.442 *
	(0.195)
2000 entering cohort	0.330 **
	(0.145)
2001 entering cohort	0.299 ***
	(0.131)
2002 entering cohort	0.262 ***
	(0.115)
2003 entering cohort	0.242 ***
	(0.107)

Exhibit 18

Coefficient Estimates From the Logistic Model of a Portability Move (continued)

	Odds Ratio
2004 entering cohort	0.144 ***
	(0.064)
2005 entering cohort	0.283 **
	(0.164)
Household location (before move)	
Central city	Reference
Suburb	1.406 ***
	(0.044)
Nonmetropolitan	1.271 ***
	(0.049)
Neighborhood poverty rate less than 10 percent	1.061 *
	(0.036)
Neighborhood poverty rate 10–20 percent	Reference
Neighborhood poverty rate 21–30 percent	0.939 *
	(0.034)
Neighborhood poverty rate greater than 30 percent	0.881 ***
	(0.036)
New England census division	1.575
	(0.452)
Middle Atlantic census division	0.994
	(0.284)
East North Central census division	0.870
	(0.249)
West North Central census division	1.314
	(0.377)
South Atlantic census division	1.091
	(0.312)
East South Central census division	0.794
	(0.230)
West South Central census division	0.997
	(0.285)
Mountain census division	1.482
	(0.426)
Pacific census division	1.336
	(0.381)
Puerto Rico and other outlying territories	Reference
Log likelihood = – 29,700 Number of households = 96,560 Number of household-year observations = 321,163	

Notes: Dependent variable = 1 if household i exercised portability move at year j.
= 0 otherwise.

Standard errors are in parentheses.

** Significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent.*

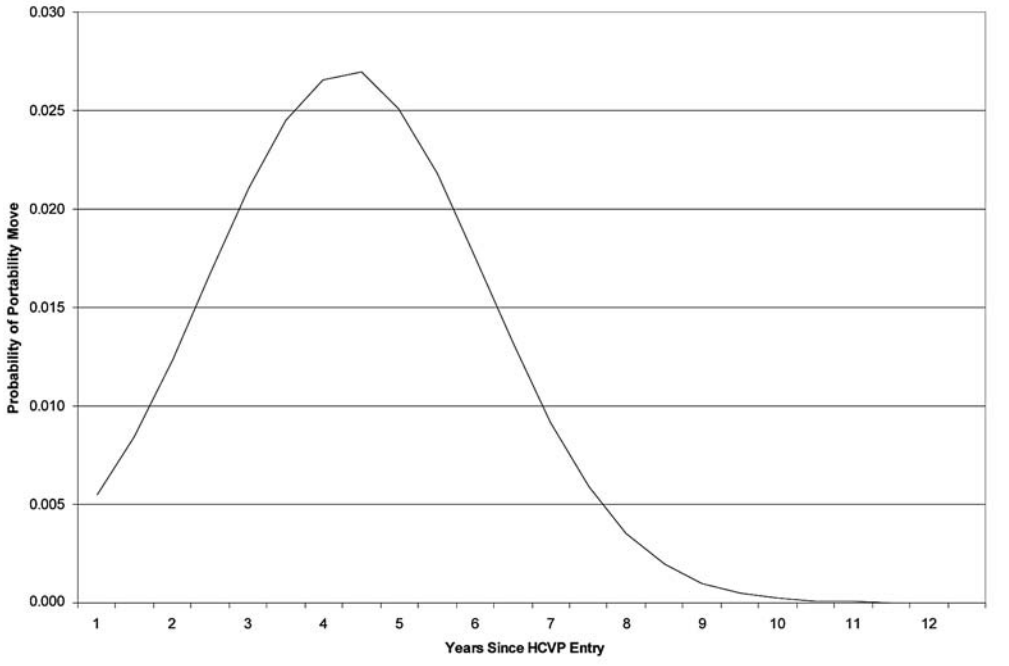
Sources: Multifamily Tenant Characteristics System/Public and Indian Housing Information Center data 1997–2005; Census 2000 Summary File 3

- The length of stay in the HCVP correlates with a household's portability move decision. Exhibit 19 shows the relationship between the duration of program stay (in years) and the probability of portability move, using coefficient estimates from the logit model.[14] For an average HCVP participant, the likelihood of making a portability move increases monotonically from program entry and peaks between the fourth and fifth years. Starting in the fifth year, the probability of a portability move begins to decrease.
- Households that entered the HCVP in recent years tend to be less likely to exercise the portability move option than households from the earlier cohorts.
- Compared with households in central cities, households in suburbs and nonmetropolitan areas have a higher likelihood of making a portability move, all else being equal.
- Households in low-poverty areas (defined as census tract poverty rate below 10 percent) have slightly higher odds of portability; households in high-poverty neighborhoods (census tract poverty rate greater than 20 percent) are less likely to exercise portability. The reference category in this analysis is households in neighborhoods with poverty rates between 10 and 20 percent.

The multivariate analysis thus bears out the relationships observed in many of the earlier tables.

Exhibit 19

Relationship Between the Length of HCVP Stay and Probability of a Portability Move



HCVP = Housing Choice Voucher Program.

[14] To compute the predicted probability, we varied the value of the Housing Choice Voucher Program stay variables (from 0 to 12 by an increment of 0.5) and set the other variables in the mode to the sample mean values.

Conclusion

Through portability, participants in the Housing Choice Voucher Program have the option of using a voucher to move to a unit outside the issuing housing agency's jurisdiction. In this article, we discussed the findings of an analysis of portability moves made from 1998 to 2005. Using a specially constructed longitudinal data set developed from U.S. Housing and Urban Development administrative records, we first identified records that represented portability moves, and then we analyzed household and neighborhood characteristics associated with portability moves. Of the 3.4 million households that received housing assistance in the voucher program during these years, 8.9 percent made a portability move.

Portability movers were less likely to have a White head of household (51.4 percent) compared with households in the overall HCVP (56.6 percent), and they were more likely to have an African-American head of household (45.6 percent) than households in the overall HCVP (39.8 percent). Portability mover households on average were younger than households in the overall HCVP (39.5 years old compared with 43 years old, respectively). Portability movers were more likely to be households with children, and households with preschool-aged children were 1.4 times more likely to complete a portability move compared with other households in the HCVP with similar demographic and location characteristics. When examining annual income sources, porting households were less likely to have wage income and slightly more likely to have welfare income. Households with welfare income accounting for at least half of household income had a higher likelihood of completing a portability move compared with other households. Length of stay in the HCVP also correlated with portability moves—portability moves were most likely to occur between the fourth and fifth years of HCVP participation.

Portability movers typically moved to census tracts with lower poverty rates and lower minority rates. In the preportability location, the average census tract poverty rate was 18.3 percent, and in the portability move location, the average census tract poverty rate was 16.3 percent. Overall, average census tract minority rates decreased from 45.9 percent in the preportability location to 43.8 percent in the portability move location. Statistics for portability households originating in a metropolitan area highly segregated by race show the average census tract minority rate was 63.3 percent in the preportability location and 51.0 percent in the portability move location.

The HCVP operates primarily in metropolitan areas, and portability movers were most likely to move to a metropolitan area. The highest portion of portability moves was within the same metropolitan area (41.3 percent), the next highest portion of portability moves was from one metropolitan area to another metropolitan area (37.3 percent), and another 10.2 percent moved from a nonmetropolitan area to a metropolitan area. Nearly one-third of portability moves were moves of more than 100 miles, and the median portability move was 25 miles. The analysis of public housing jurisdictions by program costs indicated that three-fifths of portability moves were made to lower cost jurisdictions compared with the originating jurisdiction.

Appendix

Highly Segregated Metropolitan Areas, 2000

Exhibit A–1

The 25 Most Racially Segregated Metropolitan Areas, With a Population of 250,000 or More, in 2000

MSA/PMSA Name	MSA/PMSA Code	Total Population	Dissimilarity Index
Detroit, MI PMSA	2160	4,441,551	0.846
Gary, IN PMSA	2960	631,362	0.839
Milwaukee-Waukesha, WI PMSA	5080	1,500,741	0.818
New York, NY PMSA	5600	9,314,235	0.810
Newark, NJ PMSA	5640	2,032,989	0.801
Chicago, IL PMSA	1600	8,272,768	0.797
Cleveland-Lorain-Elyria, OH PMSA	1680	2,250,871	0.768
Buffalo-Niagara Falls, NY MSA	1280	1,170,111	0.766
Flint, MI PMSA	2640	436,141	0.765
Cincinnati, OH-KY-IN PMSA	1640	1,646,395	0.739
Bridgeport, CT PMSA	1160	459,479	0.737
Saginaw-Bay City-Midland, MI MSA	6960	403,070	0.732
St. Louis, MO-IL MSA	7040	2,603,607	0.731
Nassau-Suffolk, NY PMSA	5380	2,753,913	0.730
Bergen-Passaic, NJ PMSA	0875	1,373,167	0.723
Philadelphia, PA-NJ PMSA	6160	5,100,931	0.720
Youngstown-Warren, OH MSA	9320	594,746	0.719
Fort Wayne, IN MSA	2760	502,141	0.706
Indianapolis, IN MSA	3480	1,607,486	0.704
Birmingham, AL MSA	1000	921,106	0.701
Harrisburg-Lebanon-Carlisle, PA MSA	3240	629,401	0.699
Peoria-Pekin, IL MSA	6120	347,387	0.699
Dayton-Springfield, OH MSA	2000	950,558	0.698
Beaumont-Port Arthur, TX MSA	0840	385,090	0.694
Miami, FL PMSA	5000	2,253,362	0.694

MSA = metropolitan statistical area. PMSA = primary metropolitan statistical area.

[a] This exhibit lists the 25 metropolitan areas, each with a population of 250,000 or more, with the highest levels of racial segregation based on the following data components:

Year: 2000 Census.

Racial minority: African Americans.

Measure of segregation: dissimilarity index.

Unit of analysis for computing the dissimilarity index: census tract.

Note: The metropolitan areas are MSAs/PMSAs based on the Office of Management and Budget definitions for metropolitan areas as of June 30, 1999.

Source: U.S. Census Bureau (http://www.census.gov/hhes/www/housing/housing_patterns/excel_msa.html)

Exhibit A–2

The 25 Metropolitan Areas Most Segregated by Income, With a Population of 250,000 or More, in 2000

MSA/PMSA Name	MSA/PMSA Code	Total Population	Dissimilarity Index
New York, NY PMSA	5600	9,314,235	0.787
Milwaukee-Waukesha, WI PMSA	5080	1,500,741	0.778
Newark, NJ PMSA	5640	2,032,989	0.773
Philadelphia, PA-NJ PMSA	6160	5,100,931	0.769
Birmingham, AL MSA	1000	921,106	0.758
Toledo, OH MSA	8400	618,203	0.758
Louisville, KY-IN MSA	4520	1,025,598	0.750
Cleveland-Lorain-Elyria, OH PMSA	1680	2,250,871	0.749
Bridgeport, CT PMSA	1160	459,479	0.742
Memphis, TN-AR-MS MSA	4920	1,135,614	0.742
Los Angeles-Long Beach, CA PMSA	4480	9,519,338	0.739
Dallas, TX PMSA	1920	3,519,176	0.737
Detroit, MI PMSA	2160	4,441,551	0.736
Trenton, NJ PMSA	8480	350,761	0.735
Columbus, OH MSA	1840	1,540,157	0.731
Chicago, IL PMSA	1600	8,272,768	0.728
Tucson, AZ MSA	8520	843,746	0.726
Denver, CO PMSA	2080	2,109,282	0.725
Omaha, NE-IA MSA	5920	716,998	0.725
Houston, TX PMSA	3360	4,177,646	0.724
Akron, OH PMSA	0080	694,960	0.722
Phoenix-Mesa, AZ MSA	6200	3,251,876	0.722
Baltimore, MD PMSA	0720	2,552,994	0.719
St. Louis, MO-IL MSA	7040	2,603,607	0.717
San Antonio, TX MSA	7240	1,592,383	0.717

MSA = metropolitan statistical area. PMSA = primary metropolitan statistical area.

[a] This exhibit lists the 25 metropolitan areas, each with a population of 250,000 or more, with the highest levels of income segregation based on the following data components:

Year: 2000 Census.

Low income: estimated number of families with an annual income of less than 30 percent of MSA/PMSA median.

High income: number of families with an annual income of more than $200,000.

Measure of segregation: dissimilarity index.

Unit of analysis for computing the dissimilarity index: census tract.

Note: The metropolitan areas are MSA/PMSAs based on the Office of Management and Budget definitions for metropolitan areas as of June 30, 1999.

Sources: Census 2000 Summary File 3, Tables P76 and P77

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