
March 13, 2006

TECHNICAL APPENDIX

This appendix describes the sources and methods used to obtain the estimates that appear in the body of this analysis. Our estimates rely primarily on two sets of HUD data. The first set is from HUD's Voucher Management System (VMS). The VMS contains data on the number of leased vouchers and subsidy payments to owners that agencies submit to HUD each quarter. At the time we carried out this analysis, we had access to VMS data covering the period from August 2002 (the start of these data) through September 2005.¹ The second set is HUD's Resident Characteristics Report (RCR) database, downloaded periodically through January 2006, which contains information on the number of authorized vouchers at each agency. For some state or local agencies, for which the RCR data appeared inconsistent or questionable, we relied on information on the number of authorized vouchers we received directly from the agency.

Voucher Funding in 2007 Under the President's Proposed Budget

The President's budget requests \$14.4 billion for voucher renewals, of which \$14.3 billion would be distributed under a specified formula. To estimate the number of housing vouchers funded at each agency in 2007 under the President's budget, we first had to calculate the amount of funding each agency would be likely to receive under the formula, and then estimate the number of vouchers each agency could support with the allocated funds. Because the remaining \$100 million is proposed to be set aside for funding adjustments largely in HUD's discretion, we could not allocate these funds to the agency level.²

¹ In some cases, VMS data were missing in one or more quarters for agencies that were required to submit the data. In these cases, we projected costs and utilization using data submitted by the agency for an earlier quarter and assumed that the agency's subsequent costs and utilization grew at the average rate reported for the same quarter at agencies with complete data. In other cases, agencies reported extremely high or low per-unit costs or utilization rates, indicating that the data were likely to be erroneous. In these cases, we adjusted the data in the same manner as for agencies with missing data or based on information on the agency's voucher program obtained from the agency.

² As proposed, the \$100 million set-aside could be used to meet higher per-voucher costs or possibly to fund additional already-authorized vouchers. The only specified use of the funds is for portability-related payments, which we assumed would be cost adjustments rather than funding for an increase in the total number of vouchers funded nationally. (See discussion in the paper at pages 10-11.) Because of the nature of the specified use of the funds and uncertainty about other possible uses, our estimate that the budget would fund 2,070,000 vouchers does not include any additional vouchers that could potentially be funded with the set-aside funds.

Estimating Agency-Level Voucher Funding in 2007

Under the budget formula, agency voucher funding in 2007 would be determined in four steps. The basis of an agency's funding in 2007 is the funding the agency was eligible to receive in 2006, prior to proration. Second, the 2006 funding eligibility level is adjusted to cover the cost of newly expiring tenant protection vouchers and the cost of deposits into escrow savings accounts for participants in the Family Self-Sufficiency program.³ Third, the resulting sum is inflated by the regional HUD annual adjustment factor (AAF) for 2007. Finally, if funding provided for voucher renewals under the formula is insufficient, HUD is directed to prorate funding using the same percentage for all agencies.

Estimating 2006 Renewal Funding Eligibility

The first step in determining agency funding in 2007 is to determine each agency's funding eligibility level in 2006. HUD has not made these figures public, so we had to estimate them. These are the four possible components of the 2006 funding eligibility level for each agency and our calculation method for each component.

- 1) The starting point for the 2006 calculation is the agency's 2005 funding eligibility level. For most agencies, this is based on actual voucher leasing and costs in the "snapshot" period of May – July 2004. For 18 agencies with special funding agreements with HUD under the Moving-to-Work (MTW) demonstration, the agreement may provide a different initial starting point. HUD has released a list showing the funding levels for which each agency was determined to be eligible in 2005 prior to the 4.1 percent proration due to the funding shortfall in 2005. We used HUD's data for this component.
- 2) From available data, it appears that 173 agencies that received tenant protection vouchers to replace demolished public housing or expiring or terminated project-based assistance in 2004 or 2005 are eligible for additional funding in 2006 to renew vouchers that are not fully reflected in the 2005 base. To estimate the amount of these tenant protection adjustments, we primarily used HUD data provided to Congressional staff in September 2005. HUD data, however, did not account for about 21,000 of the increase in authorized vouchers from January 2005 to January 2006, and HUD had acknowledged that further adjustments costing approximately \$119 million would be needed for additional tenant protection vouchers. We estimated the number of additional vouchers that would be included in agencies' 2006 funding eligibility levels using the 2005 increase in authorized vouchers as reflected in HUD data.
- 3) HUD adjusts the sum of the funding under the first two components by the applicable 2006 AAF. These are published by HUD and available at <http://www.huduser.org/datasets/aaf.html>. We matched each agency with the AAF for the region in which it was located. For state agencies (which usually administer vouchers in more than one AAF area), we used the 2006 AAF for the same region as the AAF HUD used to calculate the agency's funding in 2005.

³ See text box at page 8 of the paper.

- 4) For some agencies, the 2006 funding eligibility level will have a fourth component: the amount of adjustment funds HUD allocates to the agency out of the \$44.55 million Congress set aside for this purpose. HUD has not yet announced which agencies will receive these funds or the details of how funds will be allocated. HUD has, however, stated that it will first use funds to provide adjustments to agencies that were shortfunded in 2005 because their voucher utilization rate during May-July 2004 was lower than the utilization rate during their 2004 fiscal year.⁴ We assumed that all agencies eligible for this adjustment will request it and that HUD will allocate funds to all eligible agencies on a pro-rated basis. Using VMS data, we calculated the national number of vouchers for which agencies would be eligible to receive an adjustment by subtracting each agency's utilization of authorized vouchers during May-July 2004 from its utilization of authorized vouchers during its 2004 fiscal year. We found that agencies would be eligible for funding for an additional 15,608 vouchers, at a total cost of \$97 million.⁵ The \$44.55 million set-aside in the final 2006 appropriations bill would cover 46 percent of this cost. We added the resulting amount of adjustment funds to the 2006 funding eligibility level for appropriate agencies.

2007 "Base" Adjustments

The second step is to make appropriate adjustment to the 2006 funding eligibility level for first-time renewal of tenant protection vouchers and FSS escrow deposits. We could make only a portion of these adjustments at the agency level, for agencies that received new tenant protection vouchers in 2005. For 2006 tenant protection awards, we estimated the funds needed nationally for first-time renewals and reserved these funds in determining the estimated proration rate, as described below. Data also are not available on agency contributions to FSS escrow funds in 2006. Given the likely small cost of the FSS adjustments (an estimated \$15 million), and the rough nature of this estimate, we omitted the FSS adjustment step from our calculations.

Agencies that received new tenant protection vouchers in 2005 will receive less than a full year's renewal funding for these vouchers in 2006. Initially, HUD awards 12 months of funding for tenant protection vouchers. These funds will be exhausted at some point in 2006, and HUD estimates that expiration point in calculating the partial funding due in 2006 to carry funding for these vouchers through December 2006. (HUD provides voucher funding to agencies on a calendar year basis.) In 2007, however, these vouchers will need a full 12 months of funding, so an adjustment is required to the 2006 funding eligibility level to provide full-year funding for the 2005 tenant protection awards. We used the available data described above to estimate the number of 2005 tenant protection vouchers due for adjustment in 2007 at particular agencies. To estimate the cost of these adjustments we used our estimate of the agency's 2007 voucher per unit cost, described below.⁶

⁴ See HUD Office of Housing Voucher Programs, Powerpoint presentation on "Housing Choice Voucher Program FY 2006 Appropriations Implementation," <http://www.hud.gov/offices/pih/programs/hcv/2006appropsbroadcastrev.ppt#43>.

⁵ We multiplied the number of adjustment vouchers for which an agency could be eligible by its estimated 2006 per unit voucher cost. See below for the explanation of the 2006 per unit cost method. We assumed that HUD would cap adjustments in cases where an agency would be unable to use the full adjustment it would otherwise receive.

⁶ HUD provides first-time renewal funding for a portion of tenant protection vouchers called "enhanced vouchers" — those used by families to remain in a privately-owned building that no longer receives federal project-based assistance —

2007 Annual Adjustment Factors

HUD will not determine the 2007 annual adjustment factors until late in 2006. At this point it is not clear whether HUD will use the same type of data for the AAFs it has used in previous years. In 2006, HUD used Consumer Price Index data for rent and utility costs in 99 HUD-defined AAF areas where the Bureau of Labor Statistics computes the CPI, and random digit dialing (RDD) survey data in the ten HUD regions for areas without CPI data.⁷ Typically these data reflect the change in costs two years earlier: for 2007, the AAFs use data comparing rent and utility costs in 2005 with the period a year earlier. HUD has indicated that it will shift to using American Community Survey data to calculate AAFs when there are data available for enough communities for a long enough period of time. ACS data may be more accurate than the RDD data used in areas without CPI data, and may be more recent than either the CPI or RDD data have been. HUD has not announced whether it will use ACS data for the 2007 AAFs.

Because we do not know what data HUD will use for the 2007 AAFs, and because it is difficult to predict local and regional AAFs from one year to the next, we used a uniform estimate for each agency. To be conservative, we assumed that the national AAF would be 2.7 percent. This AAF rate is the same as the voucher cost inflation rate we assumed for 2007, based on the estimate by the Congressional Budget Office (CBO).⁸ Using the same estimated AAF for all agencies minimizes the likely actual differences among agencies in 2007 funding levels. Even if the national average AAF turns out to be 2.7 percent, agencies that have a higher adjustment factor applied to their formula funding will receive more funding than we have estimated, and conversely, agencies that have a lower applicable AAF will receive less funding. To the extent that agencies' actual cost changes differ from their AAF, they will receive funding for more or fewer vouchers in 2007 than we have estimated.

2007 Proration Rate

Using the three steps described above, we estimated that full funding of the budget formula in 2007 would cost \$15.368 billion, \$1.032 billion more than the \$14.336 proposed for formula renewal funding. As a result, HUD would have to prorate, or reduce, the funding each agency is eligible to receive by 6.7 percent. This is a deeper proration rate than HUD has used in the last two years. (See page 7 of the paper.)

If our estimate of the cost in 2007 of fully funding the formula is too high or too low, the proration rate would change accordingly. In particular, if the national AAF turns out to be greater than 2.7 percent, as has been the case in recent years, then the funding proration under the formula will be deeper than the 6.7 percent we have estimated.

using actual cost data for these vouchers. These costs frequently exceed an agency's regular average voucher cost. With the VMS data available we could not calculate separately the costs of enhanced vouchers. Our estimates thus may understate these renewal costs and the funding due agencies administering enhanced vouchers.

⁷ HUD describes its AAF methodology in an overview available at <http://www.huduser.org/Datasets/aaf/aafover.pdf>.

⁸ Voucher costs vary based on tenant incomes and housing agency policies, as well as on changes in market rents and utility costs, so the AAF and the actual change in voucher costs need not be the same, even if HUD uses more current data to set the AAF.

Estimating the Number of Vouchers Funded

In 2007, the budget proposes to allow agencies to use all of the funds they receive to issue vouchers to eligible families, without regard to the number of vouchers an agency has been authorized to administer under previous contracts. To estimate the number of vouchers funded at each agency in 2007, we divided the estimated amount of funding the agency would receive, as described above, by the agency's estimated per-voucher cost in 2007. For each agency, we first estimated the agency per-voucher cost (HUD calls this the PUC, or per unit cost) for 2006, as explained below, and then assumed that costs at each agency would increase at 2.7 percent in 2007, the CBO estimate of the national rate of cost increase.

We estimate that the \$14.3 billion proposed to renew vouchers using the formula described above would fund about 2,069,000 vouchers. The state data tables reflect the availability of funding for 2,055,000 vouchers that we were able to allocate to the local level. The difference is half of the estimated number of new tenant protection vouchers to be issued in 2006, which will need renewal funding for a portion of 2007 when the initial 12 months of funding expires.

2006 Per-Voucher Cost

As noted above, the latest month for which we have VMS data is September 2005. To estimate per-voucher costs in 2006, we had to anticipate not only how rental costs and family incomes would change at the local level, but also how housing agencies would modify policies that affect subsidy levels, such as the maximum voucher payment. The paper discusses the marked decline in average voucher costs beginning in late 2004. (See pages 16 – 18.) For most agencies, costs either declined or increased at less than the HUD AAF in this period. These changes appear to have been driven significantly by agency policy choices, as well as by falling or stagnant rental costs in some markets.

Using a model that blends projected changes in rent (and utility) costs and family incomes, the Congressional Budget Office estimated that voucher costs would increase at 2.7 percent in 2006. CBO made this estimate before actual cost data were available for most of 2005, showing the unprecedented cost decline. HUD's 2006 AAFs, weighted based on the authorized vouchers funded at each agency, average 3.2 percent. On balance, it is our judgment that both of these figures are likely to overstate cost increases in 2006 by not considering the role of agency policy choices.

We estimate that on a national basis, average voucher costs will increase 1.6 percent from 2005 to 2006. This figure is derived from agency-level estimates calculated as follows. For the last quarter of 2005, we assumed that the average voucher cost at each agency would remain the same as in the third quarter, the most recent data we have. The primary reason we assume that costs would not continue the declining pattern of the first nine months of the year is our judgment that declining costs in 2005 were largely the result of policy changes agencies made in mid- to late-2004 to respond to funding shortfalls that year. Once these changes were fully in effect — many would not have been implemented for individual families until their annual rent recertification — further policy-driven declines in costs would be unlikely. Nonetheless, the funding shortfall at most agencies in 2005 made it unlikely that agencies would loosen policies in 2005 to allow costs to increase.

In 2006, we estimate that agencies will permit costs to increase at the rate of the applicable HUD AAF. With more funding than in 2005,⁹ agencies are likely to allow reasonable rent increases requested by owners to keep them in the program, and may adjust payment standards at least to the extent of increases in HUD Fair Market Rents (which are adjusted from year to year partly based on rental inflation data similar to that used to calculate AAFs).

The effect of this method is that we assumed that the PUC in December 2006 would be, on average nationally, about 3.2 percent above the December 2005 level. However, because we assumed that this increase would start from the agency average cost in the 4th quarter (which in turn reflects the PUC declines that occurred over the course of 2005), the average 2006 cost would be only about 1.6 percent above the average 2005 cost.

Vouchers Funded in 2006

Our analysis compares the vouchers *renewed* in 2007 to the number of vouchers *funded* in 2006. There are two sources of funding for vouchers in 2006: the \$13.95 billion in renewal funding appropriated by Congress in 2006, and first-time awards of tenant protection vouchers.¹⁰ In 2006 agencies will have first-time tenant protection funds awarded in 2005 and in 2006. As described above, we could allocate to the agency level only awards that are reflected in available HUD data.¹¹ Eligibility for renewal funding in 2006 is determined as explained above (see pp. 2-3), and then prorated by the reduction rate of 94.599 percent that HUD announced in late February. (See note 10 of the paper.)

To determine the number of vouchers funded in 2006, we divided the total funding available to each agency in 2006 from these two sources by the estimated 2006 per-voucher cost, derived as explained in the previous section. In some cases we adjusted this result to reflect fully the increase in authorized vouchers through 2006, on the assumption that HUD would provide agencies the funds needed to renew tenant protection vouchers.

In 2006, however, agencies are not permitted to use available funds to support more than their authorized number of vouchers. (This restriction is contained in the appropriations act. See page 9 of the paper and note 13.) Because of this limitation, agencies will be unable to use more than \$200 million of the renewal funding allocated in 2006.

We estimate that with renewal funds and new tenant protection funds, agencies in 2006 will be able to use approximately 2,066,000 authorized vouchers, or about 3,000 fewer than the 2,069,000

⁹ Our estimates indicate that 95 percent of agencies, administering 89 percent of vouchers, will receive more funding from HUD for voucher subsidies in 2006 than they did in 2005.

¹⁰ We did not include the special voucher funding Congress provided for families displaced by the 2005 Gulf hurricanes in our estimates.

¹¹ In addition to vouchers funded by these two sources of funds, in 2006 there are 426 vouchers funded under pre-2004 multi-year contracts, according to an expiration schedule provided to Congressional staff in 2004. We do not know which agencies have these vouchers. About two-thirds of agencies also are likely to have started 2006 with some carry-over funds from 2005. Our estimates assume that the only agencies that would use these funds to support additional vouchers are agencies that otherwise would have to cut vouchers in 2006 due to funding shortfalls. The use of carry-over funds under this assumption accounts for 209 of the vouchers funded in 2006 at 63 agencies. See also footnote 11 in the paper, discussing the possible increase of about 16,000 vouchers in 2006 through agency use of carry-over funds.

we estimate will receive renewal funding under the President's budget. Since there is some degree of uncertainty surrounding a number of the assumptions and data sources used in developing our estimates, we consider an increase of 3,000 vouchers in 2007 — or 0.15 percent — to be essentially the same level of vouchers funded as in 2006.