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SCHIP at 10: A Synthesis of the Evidence on Retention

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EXECUTIVE SUMMARY

Purpose. This study synthesizes the available evidence on disenrollment rates and reasons for disenrollment to produce estimates of SCHIP retention rates. The paper also summarizes the evidence on state SCHIP policies that influence retention.

Background. Retention is key in achieving SCHIP's mission to reduce the number of uninsured children. Currently, there are no direct estimates of the rate of retention among children who remain eligible for SCHIP. Instead, researchers have primarily measured rates of program disenrollment. However, disenrollment gives a broader measure of turnover than retention because disenrollment rates typically include both eligible and ineligible children who leave the program. Thus, disenrollment rates alone do not allow program officials and policymakers to assess the extent to which SCHIP retains children who are eligible.

Approach. This paper develops a conceptual framework depicting pathways to disenrollment and retention within SCHIP, including reasons for disenrollment. Based on a comprehensive literature search, we identified studies that presented empirical evidence on one or more of the following topics: (1) the magnitude of disenrollment from or re-enrollment in SCHIP; (2) the likelihood of eligibility among SCHIP disenrollees; and (3) the relationship between state SCHIP policies and retention. The paper then summarizes empirical evidence on the magnitude of disenrollment and re-enrollment in 19 states and nationally, based on a synthesis of evidence from 10 studies. Based on a synthesis of evidence on the magnitude of disenrollment, coupled with data from two studies on reasons for disenrollment, we calculated an estimate of retention for the SCHIP program. The paper also reviews which types of state policies appear to affect retention.

Findings. Twelve-month retention rates varied widely across the 19 states studied (31 percent to 98 percent), but exceeded 75 percent in most of those states. The evidence from cross-state comparisons of disenrollment and reenrollment rates suggests that streamlined renewal procedures, passive renewal, and continuous coverage policies are promising strategies to increase retention. In addition, in states that charge premiums, the use of grace periods for late payments may improve the continuity of coverage for children subject to premiums.

Implications. Although initial concerns about retention were pronounced, this synthesis suggests three main conclusions to counter these concerns. First, relying on studies that focus on disenrollment to evaluate retention will lead to underestimating the level of retention among those who are eligible for SCHIP, as a sizable proportion of children who disenroll are no longer eligible. Many, in fact, retain continuity of coverage by transferring to Medicaid or obtaining private insurance coverage. Second, 12-month retention in SCHIP programs varies widely across states but exceeded 75 percent in most of the states included in this synthesis, meeting or surpassing Medicaid and commercial benchmarks available in the literature. Third, states have experimented with various strategies to improve retention, and many of these appear to have positively influenced SCHIP retention rates.

SCHIP AT 10: A SYNTHESIS OF THE EVIDENCE ON RETENTION

As the State Children's Health Insurance Program (SCHIP) enters its tenth year, we know more about the factors associated with retention of eligible children than we did at the program's initiation in 1997. Early on in SCHIP's history, there were concerns that a substantial portion of the enrolled population was exiting the program while still eligible for coverage. Lack of retention of eligible children would defeat the purpose of SCHIP as a safety net for children who would otherwise be uninsured. There is evidence, however, that many of the policies adopted by states in the past 10 years are associated with increased retention, both directly and indirectly. This paper summarizes the evidence on retention in SCHIP and the policies that influence it.

Retention is a key lever in achieving SCHIP's mission to reduce the number of uninsured children. While children may appropriately leave SCHIP because they no longer meet age requirements, purchase private insurance, or take up Medicaid coverage due to a change in eligibility status, about half of the children who leave SCHIP lack an immediate source of health insurance; one-third were still uninsured six months after exiting the program (Kenney and Trenholm et al. 2005; Sommers 2005b). For children who disenroll while still eligible, lack of retention can have significant consequences in terms of their receipt and continuity of care. For example, children who disenroll from SCHIP are less likely to have a usual source of care, have fewer preventive visits, and may experience greater unmet need (Rosenbach et al. 2003; Lake Snell Perry 2003; Ku and Cohen Ross 2002). Unnecessary disenrollment may also increase concerns about adverse selection into SCHIP if children leave the program while healthy and only return when they require care. There is also some evidence of increased administrative costs associated with reenrollment of children who return to the program within a short period (Irvin et al. 2001; Ellwood and Lewis 1999).

As important as retention is to SCHIP's mission of reducing the number of uninsured children, there are no direct estimates of the rate of retention in the program. Instead, researchers have primarily measured rates of program disenrollment. Disenrollment is a broader measure of turnover than retention, as disenrollment rates typically include both eligible and ineligible children who leave the program. In other words, most studies of disenrollment do not distinguish between those children who are disenrolled from the program by the state because they are no longer eligible and those families who leave for reasons unrelated to eligibility. Thus, disenrollment rates alone do not allow program stakeholders to assess the extent to which SCHIP retains children who are eligible. It has

proven difficult, however, for states to determine eligibility status at the time of disenrollment due to data limitations, and therefore, to measure true program retention. None of the studies identified in our review of the literature provides a direct estimate of retention. Instead, each measures overall program disenrollment, variously defined. These estimates of disenrollment vary widely, based on both reporting and programmatic factors. This paper considers the available evidence, in combination with additional data on reasons for disenrollment, to produce estimates of true retention in SCHIP. We estimate that annual (12-month) retention in SCHIP ranges from 31 to 98 percent, with rates varying widely by state and state policies. Annual retention exceeds 75 percent in the majority of the states for which we have data, meeting or surpassing benchmarks in Medicaid and individual insurance markets.

This paper also contributes to the evidence base on the effect of various state policies. We gather evidence from the current quantitative literature and also rely on SCHIP annual reports filed by each state for information on current policies associated with retention. Although the evidence is limited, the results suggest that policies that extend continuous coverage to children for specified periods, regardless of income or eligibility changes, increase retention. Longer grace periods for premium payment may also improve retention for families that are required to pay SCHIP premiums.

The first section of this paper presents a conceptual framework depicting pathways to disenrollment and retention within SCHIP, including reasons for disenrollment. The second section summarizes quantitative evidence on the magnitude of disenrollment and retention across state programs. The third section reviews which types of state policies appear to affect retention. The paper concludes by suggesting the limitations of existing research and noting the need for ongoing monitoring of the magnitude of retention and the effectiveness of retention policies. Appendix A provides further details on state policies associated with retention and identifies selected SCHIP program characteristics across the 50 states and the District of Columbia, including type of program (Medicaid expansion program [M-SCHIP], separate child health program [S-SCHIP], or a combination of both M-SCHIP and S-SCHIP programs), maximum income threshold, and prevalence of policies associated with retention within states. Appendix B displays the major findings related to retention for each study included in this synthesis of the literature.

FRAMEWORK FOR MEASURING RETENTION

Measuring retention is a complex task. Retention measures the proportion of children who stay enrolled in SCHIP among children who remain eligible for coverage (see textbox below).[1] Few studies measure the rate of retention. Instead, most studies measure disenrollment among all children enrolled, including children who remain eligible for the program in addition to those whose eligibility status has changed. This section presents a

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[1]Some studies define retention in terms of remaining enrolled in any form of public coverage, such as Medicaid. For the purposes of this paper, we define retention only as remaining within SCHIP.

conceptual framework for understanding the difference between disenrollment and retention and the reasons behind disenrollment among eligible children.

Defining Retention in SCHIP

Retention can be defined as:

$$\frac{\text{Number of children who remain enrolled in SCHIP}}{\begin{array}{c}\text{Number of children who remain enrolled in SCHIP +}\\ \text{number of children who disenrolled from SCHIP but remained eligible}\end{array}}$$
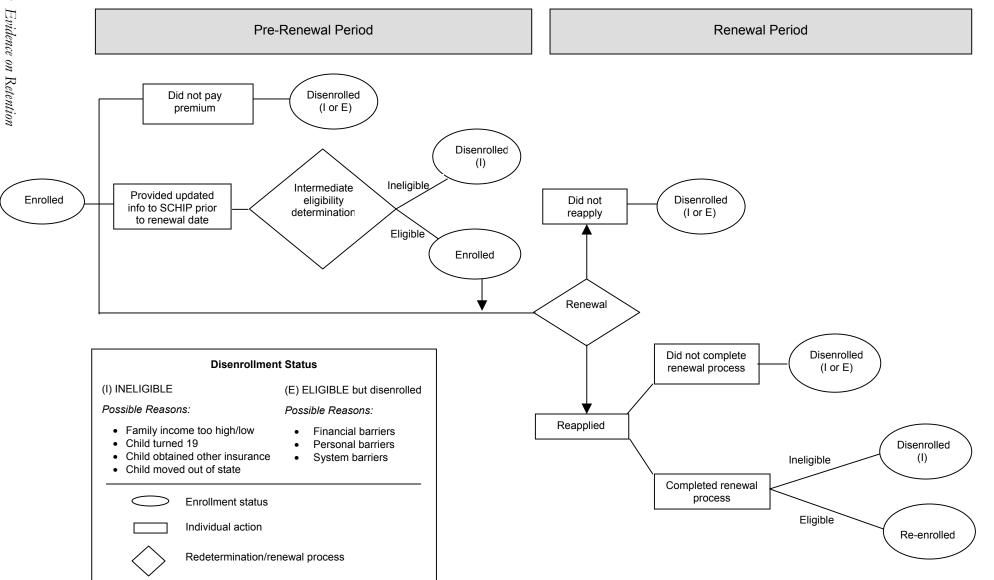

Pathways to SCHIP Disenrollment

A child may disenroll from SCHIP through several pathways, as demonstrated in Figure 1. Some of these pathways may be particular to certain state policies, described in detail below. Disenrollment among both eligible and ineligible children may occur prior to as well as during the renewal period. For example, a child may be disenrolled prior to the renewal period because of nonpayment of premiums or if deemed ineligible through an intermediate eligibility determination.[2] A family may choose to disenroll a child during this period if they have obtained private coverage through another source, such as an employer. Children also may be disenrolled during renewal periods that involve an annual redetermination of eligibility. For example, a family may be disenrolled during renewal if they do not reapply for the program, fail to submit a complete application, or complete the renewal process but are deemed ineligible. Retention, then, is the result of children maintaining their premium payments (if applicable), successfully completing the renewal process, and being determined by the state to have remained eligible.

As shown in Figure 1, some children are ineligible at disenrollment (indicated by "I" on Figure 1). For example, changes in employment or the number of children in the household may push family income above or below SCHIP thresholds. Alternatively, a child may turn 19 and age out of the program, obtain employer-sponsored insurance or Medicaid coverage, or move out of state.

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[2]An intermediate eligibility determination may occur when an enrollee's family provides updated information to SCHIP directly, for determination (or redetermination) of other social services (such as food stamps), or for enrollment or renewal of other family members in SCHIP (Rosenbach et al. 2003).

Figure 1. Conceptual Framework For Understanding SCHIP Disenrollment and Re-Enrollment

Pre-Renewal Period	Renewal Period

Did not pay premium → Disenrolled (I or E)

Enrolled → Provided updated info to SCHIP prior to renewal date → Intermediate eligibility determination

Ineligible → Disenrolled (I)

Eligible → Enrolled

Did not reapply → Disenrolled (I or E)

Renewal

Did not complete renewal process → Disenrolled (I or E)

Reapplied

Completed renewal process

Ineligible → Disenrolled (I)

Eligible → Re-enrolled

Disenrollment Status

(I) INELIGIBLE

Possible Reasons:

- Family income too high/low
- Child turned 19
- Child obtained other insurance
- Child moved out of state

(E) ELIGIBLE but disenrolled

Possible Reasons:

- Financial barriers
- Personal barriers
- System barriers

⬭ Enrollment status

▭ Individual action

◇ Redetermination/renewal process

The challenge of measuring retention is illustrated by the points of disenrollment where the eligibility status of the child is unknown (indicated by "I or E" in Figure 1). Without knowing why a child disenrolled, it is not possible to distinguish children who disenrolled even though they were still eligible from children who disenrolled because they were no longer eligible. For example, parents of still-eligible children may not reapply, pay required premiums, or complete the renewal process despite meeting eligibility standards. However, many children who disenroll may be ineligible even if the state program has not yet had the opportunity to determine their eligibility status. For example, parents may choose to allow SCHIP coverage to lapse or not renew coverage because they know that a change in family income or insurance status has made their child ineligible for the program. However, very few states, if any, reliably collect data on enrollee-specific reasons for disenrollment in a form that will support estimates of retention.

Reasons for Disenrollment Among Children Who Remain Eligible

Several studies have informed our understanding of why eligible children may not remain enrolled in SCHIP. These reasons fall into three categories: (1) personal barriers, (2) financial barriers, and (3) system-based barriers. Personal barriers to remaining enrolled include confusion about the renewal process or not remembering to renew. For example, some parents may not understand that they need to renew to keep their children enrolled (Riley et al. 2002; Hill and Westpfahl Lutzky 2003; Lake Snell Perry 2003; Tesla et al. 2003; Montana Children's Health Insurance Plan 2001; Wooldridge et al. 2003; Ziller and Loux 2003). Parents may not understand the income thresholds for the program and incorrectly assume that their children no longer qualify for the program because their incomes have risen (Riley et al. 2002; Tesla et al. 2003; Lake Snell Perry 2003). They may not realize that their premiums may adjust downward when income is lower and drop coverage because they perceive that the premiums are no longer affordable (Lake Snell Perry 2003). Parents often report that they simply forgot to renew, did not know when to renew, never got around to renewing, or failed to remember to pay their premiums (Kenney and Trenholm et al. 2005; Riley et al. 2002; Shenkman, Schaffer, and Vargas 2002; Wooldridge et al. 2003). In some cases, families have moved within a state, making it difficult for states to locate families in order to send renewal notices, reminders, and bills (Rhode Island MCH Evaluation 2002; Montana Children's Health Insurance Plan 2001). There is little evidence that parents disenroll their children from SCHIP because they are dissatisfied with the program. Most studies have found that families report having positive experiences with SCHIP, that they value having health insurance for their children, and that the level of stigma associated with being on the program is minimal (Shenkman, Schaffer, and Vargas 2002; Ziller and Loux 2003).

Financial barriers to remaining enrolled represent both the direct and indirect costs to families associated with SCHIP premiums. Twenty-eight states required premiums from some or all SCHIP participants in 2004 (Appendix A). Although most families believe that the level of SCHIP premiums is reasonable (Bluestone and Rosenthal 2000; Riley et al. 2002; Shenkman 2002; Shenkman et al. 2002; Ziller and Loux 2003), they may not be able to afford premiums reliably within their household budgets. In particular, SCHIP parents may experience fluctuations in income from hourly or seasonal jobs or from job loss that hinder

their ability to make monthly payments (Bluestone and Rosenthal 2000; Hill and Westpfahl Lutzky 2003; Ku and Cohen Ross 2002; Rosenbach et al. 2003). Families may also experience indirect costs related to premium requirements. For example, some SCHIP families pay premiums by money order because they do not have a checking account. The additional costs and time involved in purchasing a money order (the trip to the post office as well as the actual fees) may be sufficient at the margin for some families to leave the program (Bluestone and Rosenthal 2000).

System-based barriers to remaining enrolled include factors associated with state renewal and premium payment procedures. For example, such procedures include renewal forms that some families may find too complex to complete; documentation requirements for proof of family income, assets, citizenship status, or child's age; administrative errors during the processing of applications; and language barriers (Lake Snell Perry 2003; Riley et al. 2002). Families may need to travel to the local SCHIP office to address these requirements—potentially at the expense of all or part of a day's pay. These measures often reflect the challenges states face to maintain coverage for eligible children while disenrolling those who are no longer eligible.

Evidence suggests that most disenrollment is among children who are ineligible for continued participation. One of the most comprehensive sources of information is a study of recently enrolled and recently disenrolled families in 10 states (including more than 60 percent of SCHIP enrollees nationwide) conducted in 2002 using both administrative and survey data (Kenney and Trenholm et al. 2005). The study found that 75 percent of children who disenrolled from the program probably left for reasons that would have made them ineligible for SCHIP, for example, the child obtained private insurance, family income changed, the child switched to Medicaid coverage, or the child aged out of SCHIP. Riley et al. (2002) found similar results in a survey of SCHIP disenrollees in seven states, with an estimated 69 percent of disenrollees reporting reasons for disenrollment that would have rendered them ineligible.[3] Taking the inverse of these estimates, these studies suggest that between 25 and 31 percent of overall disenrollment is associated with reasons for disenrollment that were potentially avoidable. In other words, it is likely that 25 to 31 percent of children who disenroll are still eligible for continued participation in SCHIP.

In addition, some states conducted their own surveys of SCHIP families who recently left the program (Rhode Island MCH Evaluation 2002; Montana Children's Health Insurance Plan 2001; Ziller and Loux 2003). These state studies tended to have small samples with low response rates, and with varying categories of disenrollment, making it difficult to draw conclusions across states. Nevertheless, these studies reflect the findings of Kenney and Trenholm et al. (2005) and Riley et al. (2002). For example, 58 percent of

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[3] The estimate of 69 percent from the Riley et al. (2002) study reflects reasons for disenrollment only among families who were aware that their children were no longer in SCHIP. Unlike the Kenney and Trenholm et al. (2005) study, which relied on administrative data to identify disenrolled children, Riley et al. only surveyed families who knew their children were disenrolled. In fact, many families of disenrolled children believe that their children are still enrolled (Kenney and Trenholm et al. 2005).

disenrollees exiting the New Hampshire SCHIP program reported that they did not renew coverage because they had obtained another health insurance policy, and 15 percent reported that the eligibility review at renewal found that their children were ineligible (RKM 2004).

RETENTION IN SCHIP

Currently there are no direct estimates of retention in SCHIP. However, by combining state-level rates of disenrollment with estimates of the percentage of children still eligible when they leave SCHIP, we can estimate the range of retention across state programs. For this analysis we reviewed the published literature and reports available on the Internet using two main criteria to select studies related to SCHIP retention: (1) the methodology for deriving the estimates was clearly defined; and (2) disenrollment was measured at a time relative to initial enrollment.[4] These criteria led us to identify 10 studies to be included in the analysis of disenrollment rates (see Appendix B for further detail on studies). One study provides a national estimate of disenrollment (Sommers 2005b), and the remaining 9 studies report SCHIP disenrollment rates at the state level.[5] Together, these 9 studies present data on disenrollment rates in 19 states over 6 years (1998 to 2004).

The 10 studies varied considerably in methodology. For example, the Sommers paper derived a national estimate of disenrollment using Current Population Survey data on insurance status and income and age eligibility. Each of the state-level estimates relied on individual state program administrative data. Studies also varied in their reporting of disenrollment rates at different times. Six studies reported disenrollment from SCHIP at the time of renewal, a point at which disenrollment often peaks. Eight studies used survival analysis to report disenrollment at multiple times throughout two years of enrollment.

Table 1 presents estimates of disenrollment from the 10 studies, organized by study author. These estimates vary along three key dimensions:

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[4] We excluded studies that reported on program retention using monthly SCHIP turnover rates, a common measure used in the SCHIP annual reports. Turnover rates indicate the proportion of SCHIP enrollees that left the program among all enrollees in a given month, but they do not provide information on the duration of enrollment, which is crucial to understanding patterns of retention in SCHIP.

[5] Sommers reported a national estimate of retention for Medicaid and SCHIP combined based on data from the Current Population Survey in another paper (Sommers 2005a), but did not produce a retention estimate for SCHIP alone. The estimate primarily reflects Medicaid retention patterns, as SCHIP constitutes a small percentage of the total combined program enrollment, and thus, we did not include it in this synthesis.

Table 1. Estimates of Disenrollment from Selected Studies

Authors (Year of Publication)	State (Year of Data)	Type of Program	Renewal Frequency (Months)	Type of Disenrollment	Population	Disenrollment Within Period from Initial Enrollment (Cumulative Percent)						Disenrollment During Renewal Month (Percent)
						6 Months	9 Months	12 Months	14–15 Months	18 Months	21 Months	
Allison and LaClaire (2002)	Kansas (1999-2001)	S-SCHIP	12	Any disenrollment, excluding transfer to Medicaid	All SCHIP enrollees	-	-	45	-	-	-	27 [a]
California MRMIB (2006a)	California (2003)	COMBO	12	Any disenrollment	All S-SCHIP enrollees	-	-	30	-	-	-	16
			12	Due to nonpayment of premium or information not supplied at renewal[b]	All SCHIP enrollees	-	-	25	-	-	-	14
Dick et al. (2002)	Florida Kansas New York Oregon (1999-2001)	COMBO S-SCHIP COMBO S-SCHIP	6 12 12 6	Any disenrollment among recent[c] enrollees	All S-SCHIP enrollees	27 17 18[d] 68	- - - -	39 68 52[d] 88	- - - -	- - - -	- - - -	5 33 33[d] 50
Hill and Westpfahl Lutzky (2003)[e]	Alabama Colorado Michigan New York North Carolina (2000)	COMBO S-SCHIP COMBO COMBO S-SCHIP	12 12 12 12 12	Due to failure to respond to renewal notices or comply with renewal procedures [f]	All SCHIP enrollees	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	23 42 18 [g] 35 43
Merrill and Rosenbach (2006)	Kentucky New Jersey North Carolina Ohio South Carolina Utah (1999-2001)	COMBO COMBO S-SCHIP M-SCHIP M-SCHIP S-SCHIP	12 12[h] 12 12[i] 12 12	Any disenrollment among recent enrollees[c]	All SCHIP enrollees	28 12 4 39 20 13	- - - - - -	47 23 10 64 37 27	60 27 57 70 44 54	- - - - - -	- - - - - -	- - - - - -
Miller et al. (2004)	New Jersey (1998-2000)	COMBO	6	Any disenrollment	All S-SCHIP enrollees[j] Plan B Plan C Plan D	- - - -	13 6 14 17	19[k] 8 21 -	- - - -	34[k] - - -	- - - -	- - - -

Table 1 *(continued)*

Authors (Year of Publication)	State (Year of Data)	Type of Program	Renewal Frequency (Months)	Type of Disenrollment	Population	Disenrollment Within Period from Initial Enrollment (Cumulative Percent)						Disenroll During Renewal Month (Percent)
						6 Months	9 Months	12 Months	14–15 Months	18 Months	21 Months	
Moreno and Black (2005)[l]	California	COMBO	12	Any disenrollment among sample of recent enrollees[c]	S-SCHIP enrollees	2	6	-	-	-	-	-
	Colorado	S-SCHIP	12		SCHIP enrollees	1	2	6	37	-	-	34[m]
	Florida	COMBO	6		S-SCHIP enrollees	21	31	37	-	-	-	6[m]
	Illinois	COMBO	12		SCHIP enrollees	26	33	50	63	65	-	14[m]
					S-SCHIP enrollees	-	-	-	-	-	-	42[m]
					M-SCHIP enrollees	-	-	-	-	-	-	6[m]
	Louisiana	M-SCHIP	12		SCHIP enrollees	2	6	48	55	-	-	40[m]
	Missouri	M-SCHIP	12		SCHIP enrollees	22	29	32	-	-	-	-
	New Jersey	COMBO	12		SCHIP enrollees	15	24	43	48	-	-	-
					S-SCHIP enrollees	-	-	-	-	-	-	18[m]
					M-SCHIP enrollees	-	-	-	-	-	-	12[m]
	New York	COMBO	12		S-SCHIP enrollees	11	16	45	66	66	-	21[m]
	North Carolina	S-SCHIP	12		SCHIP enrollees	4	6	72	72	-	-	62[m]
	Texas	S-SCHIP	12		SCHIP enrollees	13	24	-	-	-	-	-
	10-state rate (2002)				SCHIP enrollees	12	19	41	52	53	-	-
Shenkman (2002)	New Hampshire (1999-2000)	COMBO	12	Any disenrollment among recent enrollees[c]	All SCHIP enrollees	-	-	-	-	-	56	-
Shenkman, Schaffer, and Vargas (2002)	Texas (1998-2000)	COMBO	12	Any disenrollment	Continuously enrolled M-SCHIP enrollees	-	-	-	-	-	-	31
Sommers (2005b)	U.S. (2001-2004)			Any disenrollment (sample)	SCHIP enrollees	-	-	63	-	-	-	-

Note: See Appendix B for detailed information on study objectives, data sources, outcome measures, and major findings related to retention.
[a]Allison and LaClaire (2002) report that 18 percent of children disenrolled for reasons other than transfer to Medicaid within the first 11 months of enrollment. For consistency, we calculate the disenrollment rate at renewal (month 12) by subtracting 18 percent from the within-12-month rate of 45 percent.
[b]California MRMIB (2006a) denotes this category as "disenrollment for possibly avoidable reasons." In the first 11 months after enrollment, prior to renewal, the possibly avoidable reason for disenrollment was "nonpayment of premium." At renewal, possibly avoidable reasons also included "information not supplied at [renewal]" and "needed additional [documentation]."
[c]Recent enrollees were defined variously in these studies to include enrollees in their first 2 months of SCHIP coverage, who were not enrolled in SCHIP for a period of 2 to 12 months prior to the study period. See Appendix B for more details.
[d]Dick et al. (2002) adjusted disenrollment rates in New York (which has a 3-month presumptive eligibility period during which a SCHIP applicant can receive services while their eligibility for the program is confirmed) to reflect the rate of disenrollment in the first three months based on the rate of disenrollment in Kansas (which does not have presumptive eligibility).
[e]The rates reported by Hill and Westpfahl Lutzky represent disenrollment in May 2000 among those who were up for renewal in that month, which we restated as "disenrolled at renewal" for consistency. Three additional states–California, Florida, and Missouri–were also included in the study but were excluded from this table because their data represented case closures and were not presented in terms of time of disenrollment from initial enrollment.
[f]These estimates exclude those deemed ineligible for SCHIP, as well as those who transferred to Medicaid.
[g]Disenrollment estimates during the renewal month in Michigan are expressed in terms of "applications" rather than "enrollees;" more than one child per family may be included in an application.
[h]Renewal was required every six months in New Jersey for the M-SCHIP program until July 2000, when it moved to a 12-month renewal cycle, consistent with the S-SCHIP program.
[i]Renewal was required every six months in Ohio until July 2000. The M-SCHIP program moved to a 12-month renewal cycle as of July 2000.
[j]Plans B, C, and D are S-SCHIP programs. Data from Plan A, New Jersey's M-SCHIP program, were not reported.
[k]These estimates exclude Plan D, which was enacted later than the other plans.
[l]12-month disenrollment estimates were derived from unpublished data in Figure IV.1, Moreno and Black (2005).
[m]Moreno and Black (2005) accounted for a grace period in their estimate of disenrollment during renewal by including disenrollment occurring during the renewal month or the following month. Rates of disenrollment during the renewal month were not calculated for California, Missouri, or Texas due to a lack of data for the full enrollment span.
- = data not reported.

1. ***Type of Disenrollment.*** Studies differ in whether they track disenrollment among all enrollees or recent enrollees and whether they define disenrollment as any disenrollment, any disenrollment excluding transfers to Medicaid, or "potentially avoidable" disenrollment.[6]

2. ***Population.*** Some studies measure disenrollment among all SCHIP enrollees whereas others only measure disenrollment among continuously enrolled or recent SCHIP enrollees; most use the population of enrolled children, but some use a sample.

3. ***Time Frame Relative to Initial Enrollment.*** Most studies measure disenrollment within 12 months or at renewal (which may include a 1- to 2-month grace period; hence, we report disenrollment at 14 to 15 months when data were available). We also present estimates from 6 to 21 months after initial enrollment, when possible.

Thus, the first estimate in Table 1 indicates that 45 percent of Kansas SCHIP enrollees disenrolled from the program within the first 12 months of enrollment, excluding those that transferred to Medicaid. More than half—27 percent of all enrollees who left in the first 12 months—left at renewal.

Estimates of Disenrollment

Estimates of disenrollment for any reason within 12 months of enrollment varied widely, ranging from a low of 6 percent in Colorado (Moreno and Black 2005) to a high of 88 percent in Oregon (Dick et al. 2002).[7] The national estimate of 63 percent calculated by Sommers (2005b) is at the high end of this range, whereas the 10-state rate of 41 percent calculated by Moreno and Black (2005) sits at its midpoint. The different methodology used in these two studies may account for some of the difference in their estimates. The Sommers estimate relied on a national sample of self-reported data, whereas the Moreno and Black estimate is based on administrative records for a sample of recent SCHIP enrollees in 10 states with sizable low-income uninsured populations.

Differences in study methodology may also account for different rates within the same state. For example, Table 1 reports three 12-month estimates of any disenrollment for New Jersey: 19 percent from 1998 to 2000; 23 percent from 1999 to 2001; and 43 percent in 2002 (Miller et al. 2004; Merrill and Rosenbach 2006; Moreno and Black 2005, respectively). However, the 19 percent estimate was based on administrative data from enrollees in two of

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[6] Potentially avoidable disenrollment includes disenrollment for "nonpayment of premium," "information not supplied at [renewal]," and "needed additional [documentation]" (California MRMIB 2006a) or "disenrollment either for failure to comply with procedures or being lost at redetermination" (Hill and Westpfahl Lutzky 2003). These definitions subtract out children found to be ineligible for the program through the redetermination process.

[7] Oregon had a 6-month renewal period at this time in contrast to the 12-month renewal period of most states. More frequent renewal requirements appear to lead to higher disenrollment, as discussed later.

the three S-SCHIP plans in New Jersey, the 23 percent estimate from all new enrollees in all four SCHIP plans in New Jersey, and the 43 percent estimate from a sample of recent enrollees in all plans.[8]

Several patterns of disenrollment are evident from these studies, despite their methodological differences. Many SCHIP exits during the first 12 months occurred during the renewal month for states with 12-month renewal cycles (Table 1). In California, for example, 30 percent of enrolled children left SCHIP in the first 12 months, with 16 percent of enrolled children leaving during the renewal period in month 12 (California Managed Risk Medical Insurance Board [MRMIB] 2006a). In North Carolina, which also has a 12-month renewal cycle, 72 percent of children disenrolled for any reason in the first 12 months, with 62 percent of children leaving during the renewal period in month 12 (Moreno and Black 2005). In contrast, Florida and the M-SCHIP component of the Illinois program experienced relatively low rates of disenrollment within the renewal month. These states, however, had in place either passive renewal or flexible reenrollment policies that allowed renewal after a case closure , and thus disenrollment patterns were less likely to be influenced by renewal cycles (Moreno and Black 2005).[9]

The columns in Table 1 documenting disenrollment within 12 months of enrollment as compared to within 14 and 15 months of enrollment show the effect of grace periods for reenrollment in some states. Disenrollment rates for Colorado and Utah, for example, show dramatic increases between 12 and 14 to 15 months after enrollment (Moreno and Black 2005; Merrill and Rosenbach 2006). This reflects the one- to two-month period when states may allow families to complete their renewal process before disenrolling them from the program. Differences in 12 month and 14- to 15-month rates in all states may also be a sign of the relatively low likelihood of disenrollment within the first year, particularly in states with continuous coverage, as discussed in detail later.

The difference between rates of disenrollment for any reason compared to disenrollment for possibly avoidable reasons in California reinforces the importance of understanding reasons for disenrollment in the context of retention. Estimates that include all reasons for disenrollment also include disenrollment among ineligible children. For example, disenrollment within 12 months in California was 30 percent for any reason, but that estimate includes disenrollees who were no longer eligible for continued participation because of income qualifications or turning 19 years of age. In contrast, 25 percent of disenrollees left the program for potentially avoidable reasons such as nonpayment of premiums, at the applicant's request, or because required information was not supplied at renewal (California MRMIB 2006a). While it is possible that some of these children were also ineligible at disenrollment, relying solely on the disenrollment rate for any reason to evaluate program retention will lead to some degree of underestimation of retention in the California program.

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[8] Of New Jersey's four SCHIP plans, only Plan A is an M-SCHIP plan; Plans B, C, and D are S-SCHIP plans.

[9] Florida also had a six-month renewal period at this time.

Using Disenrollment Rates to Estimate Retention in SCHIP

As demonstrated by the California example, state estimates of disenrollment from SCHIP understate the magnitude of retention, as they are unable to identify children who disenrolled but remained eligible for the program. However, prior research on the percentage of children who disenrolled while still eligible can be used to estimate rates of program retention. For example, Riley et al. (2002) and Kenney and Trenholm et al. (2005) estimate that 25 to 31 percent of all disenrollees are still eligible for SCHIP coverage based on their surveys of SCHIP disenrollees. The disenrollment rates presented in Table 1 can be used to estimate the range of retention in SCHIP when combined with what is known about the percent of all disenrollees who are still eligible for SCHIP. We can apply this range of the percent of disenrollees who are still eligible to calculate a rough approximation of retention based on the state disenrollment estimates in Table 1.

As described earlier, disenrollment for any reason within the first 12 months of enrollment ranged from 6 percent in Colorado (Moreno and Black 2005) to 88 percent in Oregon (Dick et al. 2002).[10] Applying the Riley et al. (2002) and Kenney and Trenholm et al. (2005) estimates of the percent of disenrollees eligible for continued program participation, disenrollment among those children who may have disenrolled while still eligible is 2 to 27 percent among the studies presented in Table 1.[11] The single state for which we have a direct estimate of disenrollment among potentially eligible children—25 percent of children in California who disenrolled due to not meeting cost sharing or administrative requirements—falls within this range. Thus, applying the definition of retention as the proportion of children who remain enrolled among children eligible for continued participation, these adjusted estimates suggest that retention in SCHIP ranged between 31 and 98 percent.[12] When calculated for all 12-month rates of disenrollment for any reason, the majority of the estimates exceed 75 percent.

There is no consensus about what constitutes a reasonable rate of retention against which to compare these estimates. It would be unrealistic to expect states to attain 100 percent retention within such a dynamic population. For example, the California MRMIB (2006b) relies on the retention rate from the National Blue Cross/Blue Shield Association's individual insurance market of 70 to 75 percent as a benchmark for retention in the California SCHIP program.[13] It may also be appropriate to consider rates of retention in Medicaid as a benchmark. Annual retention rates for children enrolled in Medicaid have been estimated at between 71 and 79 percent (Ellwood and Lewis 1999; Ku and Cohen Ross

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[10] Both these studies are restricted to disenrollment rates among new or recent enrollees.

[11] Specifically 0.06 x 0.31 = .02 and 0.88 x 0.31 = 0.27, based on Riley et al. (2002), and 0.06 x 0.25 = .02 and 0.88 x 0.25 = 0.22, based on Kenney and Trenholm et al. (2005), suggesting a range of 2 to 27 percent.

[12] Specifically this range is calculated based on data in Oregon as $(1 - .88)/[(1 - .88) + (.27)] = .31$, and in Colorado as $(1 - .06)/[(1 - .06) + (.02)] = .98$.

[13] The California MRMIB (2006b) suggests that enrollment in SCHIP is similar to enrollment in the individual insurance market, as both forms of coverage involve individual purchase decisions and premium payments. This benchmark may be less appropriate for SCHIP programs that do not require a premium.

2002). These estimates, however, preceded welfare reform, and patterns of retention in Medicaid may have changed in recent years. Sommers (2005a) reported a retention rate of 85 percent within the national Medicaid and SCHIP population combined,[14] of which SCHIP comprises only a small percentage. Most of our estimates of SCHIP retention fall within range of these benchmarks.

Estimates of Reenrollment

Another important dynamic associated with patterns of retention is reenrollment, or "churning," as it is often called. Reenrollment occurs when a child leaves SCHIP only to return within a relatively short period. Four of the studies included in Table 1 also tracked reenrollment across 16 states. As with disenrollment, estimates of reenrollment varied by the time frame, reference population, and study methodology. As shown in Table 2, reenrollment ranges from 3 to 26 percent within three months; from 5 to 35 percent within six months; and from 10 to 46 percent within 12 months (Moreno and Black 2005; Merrill and Rosenbach 2006; Shenkman, Schaffer, and Vargas 2002).

Reenrollment is particularly relevant to retention, as children who reenroll within a short time are likely to have remained eligible for the program despite their lapse in coverage. The extent to which these lapses in coverage are deliberate versus unintentional, however, is not known. Some researchers have speculated that such lapses indicate state administrative failures and bureaucratic errors that inhibit smooth transitions to reenrollment during the renewal process (Leibowitz and Pollack 2002). A persistent problem is the possibility that parents do not know the insurance status of their children or are unaware of the need to renew their children in SCHIP annually or semiannually. For example, Kenney and Trenholm et al. (2005) found that most families (75 percent) whose children had been disenrolled and then reenrolled within six months never realized that their children had left the program. Others have pointed out that such lapses may be deliberate, for example, families disenroll to avoid paying premiums but reenroll when services are needed (Shenkman et al. 2002). Florida instituted a lock-out provision to prevent this behavior, barring families who fail to pay their premiums from reenrolling for 60 days (Shenkman et al. 2002).

THE EFFECT OF STATE POLICIES ON RETENTION

As suggested in the framework presented in Figure 1, state administrative policies are one source of variation in state retention and reenrollment rates. Table 3 provides an overview of the major policies that may affect retention in SCHIP. Some of these policies have been designed explicitly to promote program retention, whereas others serve a different program purpose but may affect retention incidentally. We have grouped these policies into

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[14] Sommers (2005a) reports 27.7 percent disenrollment for a combined Medicaid and SCHIP population over a 12-month period and estimates that 45.5 percent of those who disenrolled remained eligible for continued participation in either Medicaid or SCHIP. Based on these figures, we calculate an estimate of combined program retention as $(1-.277)/[(1-.277) + (.277 \times .454)] = .85$.

Table 2. Estimates of Reenrollment from Selected Studies

Authors (Year of Publication)	State (Year of Data)	Type of Program	Type of Disenrollment	Population	Reenrollment into SCHIP Within Period from Disenrollment (Cumulative Percent)		
					3 Months	6 Months	12 Months
Dick et al. (2002)	Florida	COMBO	Any disenrollment among recent enrollees[a]	SCHIP enrollees disenrolled at renewal	11	-	-
	Kansas	S-SCHIP			18	-	-
	Oregon (1999-2001)	S-SCHIP			6	-	-
Merrill and Rosenbach (2006)	Kentucky	COMBO	Any disenrollment among recent enrollees[a]	SCHIP enrollees disenrolled at any time	8	-	19
	New Jersey	COMBO			11	-	19
	North Carolina	S-SCHIP			4	-	10
	Ohio	M-SCHIP			7	-	21
	South Carolina	M-SCHIP			4	-	12
	Utah (1999-2001)	S-SCHIP			4	-	12
Shenkman, Schaffer, and Vargas (2002)	Texas (1998-2000)	COMBO[b]	Any disenrollment	SCHIP enrollees disenrolled at any time	26	-	-
Moreno and Black (2005)	California	COMBO	Any disenrollment among sample of recent Enrollees[a]	S-SCHIP enrollees disenrolled at any time	6	10	-
	Colorado	S-SCHIP		SCHIP enrollees disenrolled at any time	11	14	18
	Florida	COMBO		SCHIP enrollees disenrolled at any time	25	35	46
	Illinois	COMBO		SCHIP enrollees disenrolled at any time	8	15	21
				S-SCHIP enrollees disenrolled at any time	10	17	25
				M-SCHIP enrollees disenrolled at any time	7	14	20
	Louisiana	M-SCHIP		SCHIP enrollees disenrolled at any time	3	5	26
	Missouri	M-SCHIP		SCHIP enrollees disenrolled at any time	14	27	32
	New Jersey	COMBO		All SCHIP enrollees disenrolled at any time	5	13	17
				S-SCHIP enrollees disenrolled at any time	4	11	17
				M-SCHIP enrollees disenrolled at any time	7	16	19
	New York	COMBO		S-SCHIP enrollees disenrolled at any time	14	18	24
	North Carolina	S-SCHIP		S-SCHIP enrollees disenrolled at any time	6	7	24
	Texas	S-SCHIP[b]		S-SCHIP enrollees disenrolled at any time	10	15	-
	10-state rate (2001)			All SCHIP enrollees disenrolled at any time	11	17	27
				S-SCHIP enrollees disenrolled at any time	12	17	27
				M-SCHIP enrollees disenrolled at any time	8	17	23

Note: See Appendix A for detailed information on study objectives, data sources, outcome measures, and major findings related to retention.

[a]Recent enrollees were defined variously in these studies to include enrollees in their first 2 months of SCHIP coverage who were not enrolled in SCHIP for a period of 2 to 12 months prior to the study period. See Appendix B for more details.

[b]The Texas SCHIP program converted from a combination program to an S-SCHIP program as of October 2001.

Table 3. State Policies That May Influence SCHIP Retention

Policy	Description of Policy
Renewal Procedures	
Streamlined renewal processes	Eliminate asset tests for eligibility redetermination
	Allow self-declaration of income
	Use mail-in, faxed, or on-line applications in place of an in-person interview
	Send preprinted renewal form to families with current information
Passive renewal	Send families a preprinted renewal form containing current information, where a response is required only if income or other circumstances have changed[a]
Continuous coverage	Allow children to retain coverage for a specified period of time (6 or 12 months) regardless of changes in income
Off-cycle renewal at sites of care	Allow families to renew coverage at clinics or other community locations prior to the actual renewal date
Premium Payment Policies	
Grace periods for premiums	Provide a grace period to pay premiums after missing the payment deadline
Lock-out provisions	Bar families who have failed to pay premiums from reenrolling for a specified period of time
Communication Strategies	
Renewal reminder notices	Send families reminders about renewal prior to the renewal date
Follow-up with families by caseworkers/outreach workers	Have caseworkers or outreach workers call families that are on the termination list
In-reach/education	Educate SCHIP-enrolled families about SCHIP eligibility and renewal policies
Coordination Efforts	
Ex parte review	Review families for eligibility under other categories of SCHIP or Medicaid coverage before disenrolling them
Express lane renewal	Use information obtained through determination of eligibility for other programs (such as the Food Stamp Program) to conduct an intermediate determination of SCHIP eligibility

Source: Mathematica Policy Research analysis of Title XXI SCHIP Annual Reports for 2004; Cohen Ross and Hill (2003); Ku and Cohen Ross (2002).

[a]Permitted only if the state has a mechanism for verifying that a child remains a resident of the state (typically, through premium payments).

four categories: (1) renewal procedures, (2) premium payment policies, (3) communication strategies, and (4) coordination efforts. Policies that relax renewal requirements—such as streamlining the application process or providing off-cycle renewal, continuous eligibility, or passive renewal—address systemic barriers associated with the renewal process. Premium payment policies, such as longer grace periods for premium payment and lock-out provisions to encourage continued payment, influence the burden of premiums on families

in states that require them. Policies to improve communication with SCHIP families, such as renewal reminder notices or follow-up with families by caseworkers, attempt to inform families about the importance of, and the procedures associated with, renewal. Coordination efforts, such as ex parte review and express lane renewal, seek to use existing sources of eligibility data to support retention. Appendix A describes these policies in detail and documents the use of many of them by state, based on 2004 SCHIP annual reports.

Estimating the Effect of State Policies on Retention

There are no experimental studies that compare the effect of state policies on retention rates. However, we can assess the effect of natural variation in the use of policies across states as well as the relative influence of policies on disenrollment pathways in a given state (as illustrated in Figure 1). For example, states that require premiums create an additional avenue for SCHIP families to leave the program when they fail to make premium payments. Conversely, states with longer grace periods for late payments may facilitate retention by giving families flexibility when their monthly income fluctuates.

Using the literature collected for our analysis of disenrollment rates, we examined which types of policies appear to be most influential in facilitating or impeding retention. Nine studies provided comparative or pre-post information on disenrollment related to state retention policies. Five studies involved cross-state comparisons of disenrollment rates (Dick et al. 2002; Hill and Westpfahl Lutzky 2003; Merrill and Rosenbach 2006; Moreno and Black 2005; Shenkman 2002); three performed pre-post comparisons within a single state (Herndon and Shenkman 2005; Marton 2006; Shenkman et al. 2002);[15] and one compared plan types within the New Jersey SCHIP program (Miller et al. 2004). Further, Riley et al. (2002) provided information on reasons for disenrollment in seven states.[16] Together, these studies reflect the experience of 22 states.

This analysis is limited, however, in its ability to report associations between state policies and retention. Isolating the effect of a specific policy is often challenging because of other state programmatic features that may indirectly affect retention, such as the level of income eligibility limits. In addition, states may employ more than one policy at a time, making it difficult to clarify which policy, or combination of policies, is most influential (Merrill and Rosenbach 2006). The effects of policies such as those that streamline the reapplication process may be difficult to measure, as they developed from operational experience and were often adopted concurrently with other strategies within a state. Furthermore, data limitations and the difficulty of making comparisons across state systems sometimes yield inconclusive results (Hill and Westpfahl Lutzky 2003). For instance, states

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[15] The three pre-post studies were not included in Table 1, as they did not explicitly provide estimates of disenrollment.

[16] Although there are a number of state-specific disenrollee surveys (such as Rhode Island MCH Evaluation 2002; Montana Children's Health Insurance Plan 2001; Ziller and Loux 2003), we did not include them because of small sample sizes and inconsistency in the definitions of the reasons for disenrollment across the states.

vary in how they implemented certain strategies, such as in the quantity and timing of renewal notice mailings or in the extent to which caseworkers actually conduct ex parte reviews or use express lane renewal. Finally, evidence is not yet available on all strategies in use in state SCHIP programs. Some strategies, such as targeted in-reach efforts to retain eligible enrollees and off-cycle renewal, are recent innovations and have not yet been evaluated. Other widely adopted strategies–such as mailing renewal reminder notices and pre-printing information on renewal forms–are the result of extensive qualitative evidence and operational experience, and are already considered best practices, according to the National Governors Association (Cornell 2000). Despite these limitations, the current research can suggest strong associations between state policies and higher rates of retention, if not actual causality.

Table 4 summarizes the evidence across the four categories of policies associated with retention. This synthesis suggests that policies that allow children to continue SCHIP coverage for a specified period despite fluctuations in family income are associated with higher retention. These strategies include continuous coverage and extending grace periods for premium payments until the end of the continuous coverage period. Simplifying renewal procedures and passive renewal also appears to increase retention. Strategies that seem to reduce retention include premium payments and lock-out provisions. These findings are explained in greater detail below.

Effect of Renewal Procedures

Streamlined renewal procedures increase retention. Strategies that streamline renewal procedures, such as using simplified or preprinted renewal forms and reducing documentation requirements, allow families to overcome administrative hurdles that might prevent them from reenrolling while their children are still enrolled. Kentucky introduced two such reforms in July 2000, when they no longer required families to appear in person for a redetermination interview or to provide written verification of income. During this period disenrollment through the renewal period in Kentucky decreased by more than one-quarter (Merrill and Rosenbach 2006). Kentucky then reinstated both requirements in June 2001, whereupon disenrollment through the renewal period increased by nearly 10 percentage points. Although this evidence cannot conclusively be tied to Kentucky's experimentation with renewal procedures, Kentucky was the only state in Merrill and Rosenbach's six-state analysis whose disenrollment increased during the latter period (after July 2000) when both policies were revoked. In fact, Merrill and Rosenbach observed decreasing disenrollment throughout the study period, particularly among states that had enacted some form of simplified renewal process.

Passive renewal increases retention. Passive renewal requires families to respond to renewal notices only when they experience changes in their income or other circumstances. It allows children to remain enrolled in the program, provided that their families continue to

Table 4. Empirical Evidence of Relationship Between State SCHIP Policies and Retention

Policy	Association with Retention	Empirical Evidence from Retention Literature
Renewal Procedures		
Streamlined renewal processes	⬆	• Decrease in disenrollment with implementation of streamlined renewal procedures; increase in disenrollment after streamlined procedures were revoked 　　KY (Merrill and Rosenbach 2006)
Passive renewal	⬆	• Stable per month disenrollment rates associated with passive renewal versus sharp increase at renewal month in states without passive renewal 　　FL vs. KS, TX, NY (Dick et al. 2002) 　　FL vs. NH (Shenkman 2002) • Increase in disenrollment after transition from passive to active renewal 　　FL (Herndon and Shenkman 2005)
Continuous coverage with longer periods between renewal	⬆	• Delay in disenrollment associated with continuous coverage 　　KS, OR, NY (Dick et al. 2002) 　　CA, CO, LA, NC (Moreno and Black 2005)[a] 　　NC, UT (Merrill and Rosenbach 2006)[b] • Lower disenrollment associated with longer continuous coverage period 　　OR vs. FL, KS, NY (Dick et al. 2002)
Off-cycle renewal at sites of care	~	No empirical evidence
Premium Payment Policies		
Premiums	⬇	• Children subject to premiums more likely to disenroll than children not subject to premiums within same state 　　NJ (Merrill and Rosenbach 2006, Miller et al. 2004) 　　NY (Dick et al. 2002) • Shorter length of enrollment following introduction of premiums 　　KY (Marton 2006) • Lower disenrollment following a premium reduction 　　FL (Shenkman et al. 2002) • Higher reenrollment in programs requiring premiums than in programs with no premiums 　　FL, KS vs. OR (Dick et al. 2002) 　　NJ S-SCHIP plan B vs. S-SCHIP plans C and D (Merrill and Rosenbach 2006)
Grace periods for premiums	⬆	• Longer grace period associated with lower disenrollment among premium payers 　　KS vs. NY (Dick et al. 2002)
Lock-out provisions	⬇	• Slight increase in disenrollment after implementation of lock-out provision 　　FL (Shenkman et al. 2002) • Decline in level of reenrollment after implementation of lock-out provision 　　FL (Shenkman et al. 2002)
Communication Strategies		
Renewal reminder notices	~	No empirical evidence
Follow-up with families by caseworkers or outreach workers	~	No empirical evidence
In-reach or education	~	No empirical evidence
Coordination Efforts		
Ex parte review	~	No empirical evidence
Express lane renewal	~	No empirical evidence

[a] In contrast, two other states with continuous coverage, Illinois and Texas, had a relatively steady rate of disenrollment.

[b] In contrast, one other state with continuous coverage, South Carolina, had a relatively steady rate of disenrollment.

pay their SCHIP premiums.[17] Florida is one of the few states that used a passive renewal policy (until July 2004) and is the source of much of the evidence about the effects of passive renewal. For example, a pre-post comparison of rates of disenrollment prior to and after the transition from a passive to an active renewal policy suggests that disenrollment during renewal increased dramatically from 5 to 27 percent upon the transition (Herndon and Shenkman 2005).

Further evidence from Dick et al.'s (2002) comparison of disenrollment rates in Florida versus other states suggests that disenrollment was substantially lower in Florida during the period that Florida had a passive renewal policy. This was despite a premium requirement for all Florida S-SCHIP enrollees, regardless of income, throughout the same period. While states without passive renewal experienced a spike in disenrollment of 50 percent in the month of renewal, children in Florida left SCHIP at a constant rate of less than 10 percent per month. Overall, Florida experienced a 12-month disenrollment rate of 39 percent compared to disenrollment rates of 52 percent, 68 percent, and 88 percent in New York, Kansas, and Oregon, respectively, which did not have passive renewal at that time. Similarly, disenrollment rates in the New Hampshire SCHIP program (which also did not have a passive renewal policy) were higher than rates of disenrollment in the Florida program over the same time period (Shenkman et al. 2002).

Longer periods of continuous coverage are associated with less disenrollment. Disenrollment tends to be gradual over time with spikes in renewal months (Dick et al. 2002; Moreno and Black 2005). This is particularly true in states that employ continuous coverage policies between renewal periods; under these policies continuous coverage may be granted for up to 12 months. Continuous coverage allows a child to remain enrolled in SCHIP regardless of income changes for a predetermined period.   Correspondingly, disenrollment rates in states with continuous coverage policies tend to be minimal until the renewal period is reached, whereupon there is a surge in disenrollment.

The evidence is mixed, however, as to whether states with continuous coverage have lower disenrollment rates in the long term than states without such policies. Merrill and Rosenbach (2006) found that any differences in disenrollment during the first 12 months between states with continuous coverage policies and those without continuous coverage policies were ameliorated by the end of the renewal period. For example, Merrill and Rosenbach report that while states that had continuous eligibility policies (North Carolina, South Carolina, and Utah) had lower disenrollment at 12 months (prior to renewal) compared to states that did not have such policies (Kentucky, New Jersey, and Ohio), overall disenrollment was relatively similar by the end of the renewal period (month 14). Dick et al. (2002) report analogous evidence of no significant overall differences in disenrollment rates in Kansas and Oregon, which had continuous eligibility policies, compared to Florida and New York, which did not have continuous coverage policies. These results suggest that although continuous coverage policies may prolong enrollment spans, it is not clear that

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[17] It is likely that some children who are ineligible remain covered by SCHIP if they continue to pay premiums, but there are no estimates of the number of children for whom this is the case.

their effect is maintained once the period of continuous coverage ends. The net effect, however, is that more children are covered for longer periods as a result of these policies (Merrill and Rosenbach 2006; Moreno and Black 2005).

Given the protective effect of continuous coverage while it is in effect, the duration of continuous coverage is also important. In most states with continuous coverage policies, the length of the continuous coverage period coincides with the timing of renewal. Among the states represented in the studies reviewed, only one study allowed a comparison of differing lengths of continuous coverage periods. Dick et al. (2002) found that Oregon, which had a 6-month period of continuous coverage, had disenrollment rates at both 6 and 12 months that far exceeded those of Kansas and New York. Both Kansas and New York required renewal at 12 months, although only Kansas had 12-month continuous coverage.[18] Thus, annual renewal, with or without 12-month continuous coverage, appears to be a substantial contributor to reduced disenrollment relative to 6-month renewal.

Effect of Premium Payment Policies

Children subject to premiums experience more disenrollment and discontinuity of SCHIP coverage than children not subject to premiums. Six of the studies investigated the role of premiums on the continuity of coverage in SCHIP, and all reached similar conclusions. In New York, premium payers were more likely to disenroll from SCHIP than non-premium payers (Dick et al. 2002). In Kentucky, the introduction of premiums resulted in an overall decrease in the average length of enrollment among children covered by SCHIP (Marton 2006). The likelihood that a child disenrolls from SCHIP also appears to rise as premiums increase. New Jersey's S-SCHIP plan is categorized into Plan B, Plan C, and Plan D, in successive order of increasing income limits and premium levels. Disenrollment rates through the renewal period were 14 percentage points higher for Plan C and 17 percentage points higher for Plan D compared to those for Plan B (Merrill and Rosenbach 2006). Miller et al. (2004) found similar evidence of higher disenrollment in higher-premium plans in their analysis of the New Jersey SCHIP program. Further, in Florida, SCHIP disenrollment rates fell following a premium reduction proportionate to the size of the reduction (Shenkman et al. 2002). Enrollees in programs with premiums were also more likely to reenroll than enrollees in programs without premiums (Merrill and Rosenbach 2006; Dick et al. 2002). In addition, children who had ever been disenrolled due to non-payment of premiums were more likely to be uninsured than children who disenrolled for other reasons (Trenholm 2005). These results suggest that children subject to premiums may experience greater discontinuity in their SCHIP coverage, as they are more likely both to fall off the program and to reenroll than those not subject to premiums.

It is not well established in the literature why disenrollment is higher among children subject to premiums than children not subject to premiums. For example, premium payers

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[18] Although Dick et al. (2002) examined disenrollment rates in Florida, this state was not included in the comparison, as Florida had passive renewal at the time of the study, which is associated with dramatically different disenrollment patterns compared to active renewal.

may disenroll because their families cannot afford to pay the SCHIP premiums or because they encounter administrative hurdles related to paying the premiums. Alternatively, because premium levels are often tied to higher family income, premium payers may be more likely to obtain private insurance coverage or experience increases in income that make them ineligible for coverage under SCHIP (Dick et al. 2002).

Longer grace periods for premium payment may increase retention among children subject to premiums. Although almost all states have higher disenrollment rates among enrollees who are charged premiums compared to those who are not (Dick et al. 2002; Miller et al. 2004; Shenkman, Schaffer, and Vargas 2002), the one exception is Kansas which has a generous grace period (Dick et al. 2002). Kansas keeps children enrolled for the entire 12-month continuous coverage period regardless of premium nonpayment but requires families to pay all outstanding premiums in order to renew coverage (Dick et al. 2002). In contrast, New York has a 30-day grace period, as is typical of the 17 states known to have grace periods (Dick et al. 2002; Steinberg 2004). Kansas, however, by extending grace periods until the end of continuous coverage, has expanded its continuous coverage policy not only to smooth over fluctuations in family income but also in the ability to pay the premium.

Lock-out provisions may increase disenrollment and prevent reenrollment. Lock-out provisions prevent children who did not pay their premiums from reenrolling in SCHIP for a specified period. States attempt to avoid adverse selection by preventing parents from enrolling their child into SCHIP (and paying premiums) only in the months when the child needs care. In Florida, the implementation of a lock-out provision appeared to increase discontinuities in SCHIP coverage as evidenced by both a slight increase in disenrollment and a substantial decrease in reenrollment among disenrolled children (Shenkman et al. 2002). In other words, the lock-out provision was associated with more children falling off, and staying off, the program rather than lengthening the amount of time children stayed enrolled in the program. The authors had no explanation as to why lock-out provisions would prompt families to disenroll from the program.[19]

DISCUSSION

As SCHIP nears its tenth anniversary, retention continues to be an important barometer of the continuity of coverage offered to low-income children who would otherwise be uninsured in the absence of SCHIP. However, as this synthesis has shown, measures of retention have been elusive. Throughout the program's history, retention has primarily been evaluated using measures of disenrollment due to a lack of data on actual retention. As indicated in our conceptual framework, measuring disenrollment in the absence of information about reasons for disenrollment greatly underestimates program retention.

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[19] Although not explicitly a lock-out provision, enrollment freezes may also prevent families from reenrolling as soon as they would prefer and thus may also have a dampening effect on retention (Cohen Ross and Cox 2003).

Moreover, rates of disenrollment vary widely, at least in part because of differing definitions, time periods, and populations of data studied.

This review of the evidence demonstrates the need for data that can be used to calculate rates of retention across the SCHIP program and to assess the effects of various state policies on retention rates. A standardized approach would necessitate that states collect and report disenrollment data using consistent definitions of reasons for disenrollment in order to determine who among their disenrolled population was still eligible for continued participation. This could be achieved either through surveys of disenrollees or by targeted outreach to disenrollees to determine their eligibility status as part of case closure procedures. Consistently reported retention rates across states would allow researchers and policy makers to more accurately understand the influence of state policies on retention. It is important to recognize, however, that these types of data collection are resource-intensive and that there will always be families who are lost to follow-up.

Given the data available, this synthesis provides a framework for evaluating retention in the context of disenrollment. Our findings suggest that retention in SCHIP may not only be better than expected (once we adjust for the disenrollment of children who are ineligible) but good compared to the benchmarks available in the literature. Furthermore, by taking advantage of cross-state variability, this synthesis describes how state policies may influence retention. Some of these policies have been adopted specifically to improve retention, whereas others may influence it indirectly. The evidence using cross-state comparisons of disenrollment and reenrollment rates suggests that streamlined renewal procedures, passive renewal, and continuous coverage policies are promising strategies to increase retention. In addition, although premiums and lock-out provisions are associated with higher rates of disenrollment, the use of generous grace periods for late payments may improve the continuity of coverage for children subject to premiums.

It is important to consider these conclusions in a broader context. Many of the studies in this synthesis evaluated retention as maintaining any form of public coverage, including transitions from SCHIP to Medicaid (Merrill and Rosenbach 2006; Trenholm 2005; Sommers 2005b).[20] Recent findings demonstrate the importance of close coordination between SCHIP and other public programs, specifically Medicaid. Trenholm (2005) and Sommers (2005b) found evidence that children leaving SCHIP who qualify for Medicaid are more likely to transfer to Medicaid if they are participating in an M-SCHIP program as compared to an S-SCHIP program. The close coordination between M-SCHIP and traditional Medicaid inherent in the structure of M-SCHIP programs allows children to transfer seamlessly from one program to the other. Specifically Sommers (2005b) estimated that children living in states with S-SCHIP or combined programs were 45 percent less likely to maintain coverage than children living in states with M-SCHIP programs. Further, Merrill and Rosenbach (2006) found that children were more likely to transfer to Medicaid in states

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[20] Ideally these studies also would examine transfers to private coverage; unfortunately this information is not available from administrative data sources used in these studies.

with S-SCHIP programs with more coordination (such as same eligibility systems, processes, and rules) than in states without such coordination.

These conclusions have a number of caveats. First, most of the evidence on state policies is based on the experiences of relatively few states. Although 22 states are represented in the synthesis, much of the evidence is concentrated among findings from 5 states (Florida, New Hampshire, New Jersey, New York, and Texas). For example, the evidence on lock-out provisions is based on one study using a pre-post comparison in Florida (Shenkman et al. 2002). Second, although we are interested in looking at the effectiveness of state policies on retention (or disenrollment among children who remained eligible for SCHIP), most of the empirical literature measures disenrollment for any reason. Consequently the true outcome of interest, namely, retention, is measured imprecisely. Third, the existing empirical literature does not examine the effects of many common retention policies adopted by states, such as mailing renewal reminder notices to SCHIP families and mailing renewal forms preprinted with current information. Fourth, none of the studies allow a direct evaluation of the causal effects of policies on retention. Moreover, very few allow for a longitudinal comparison of how retention may be changing as SCHIP programs mature. Merrill and Rosenbach (2006) provide preliminary evidence that disenrollment decreased over the period of their study, but they were not able to attribute whether disenrollment was declining in general or whether it is a result of specific state policies adopted during the study periods.

CONCLUSION

Although initial concerns about retention were pronounced, this synthesis suggests three main conclusions to counter this concern. First, relying on studies that focus on disenrollment to evaluate retention will lead to underestimating the level of retention, as a sizable proportion of children who disenroll are no longer eligible for SCHIP coverage. Many, in fact, retain continuity of coverage by transferring to Medicaid or obtaining private insurance coverage. Second, 12-month retention in SCHIP programs varies widely across states but exceeded 75 percent in most of the states included in this synthesis. Third, states have experimented with various strategies to improve retention, and many of these appear to have positively influenced retention rates over the past 10 years.

As SCHIP enters its next decade, it will be important to continue to monitor retention and the policies that influence it. State budget constraints may place increased pressures on states to contain SCHIP outlays. In response, states may adopt new policies that affect continuity of coverage (such as raising premiums or eliminating passive renewal). To monitor the effects of these changes, measures of retention will continue to be important indicators of whether SCHIP is succeeding in its goal to improve coverage and thereby reduce the number of uninsured children.

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Appendix A
State Retention Policies

APPENDIX A

STATE RETENTION POLICIES

S tates have instituted a variety of policies that both explicitly and incidentally may affect whether children stay enrolled in SCHIP. These policies include relaxing premium payment rules (reducing financial barriers), improving communication with SCHIP families (addressing personal barriers to renewal), and simplifying the renewal process for families and improving coordination between SCHIP and other programs (addressing system barriers). Every state uses some combination of these tools. The most prevalent are mailing renewal reminder notices (43 states), providing continuous coverage (32 states), preprinting renewal forms with current information (30 states), and having outreach workers contact families about renewal (30 states). Appendix Table A.1 documents the prevalence of these retention policies for all states, based on the FFY 2004 SCHIP annual reports.

RENEWAL PROCEDURES

Strategies that streamline renewal requirements, such as simplifying renewal forms and reducing extensive documentation requirements, address system barriers to renewal. As shown in Table A.1, 30 states preprint known information about the families on their renewal forms to reduce the burden required to complete and return the form. Three states—Georgia, Hawaii, and Utah—have implemented passive renewal, that is, sending preprinted renewal forms but only requiring families to respond if income or other circumstances have changed.[1]

The ability of states to extend up to 12 months of continuous coverage in Medicaid and SCHIP was granted in the Balanced Budget Act of 1997, which created the SCHIP program (Irvin et al. 2001).[2] As of FFY 2004, 32 states had continuous coverage policies. Most of these states extend continuous coverage for 12 months, but 5 (Alaska, Florida [for S-SCHIP only], Nebraska, Oregon, and Texas) use 6-month periods and one uses a 10-month continuous coverage period (Minnesota).

Off-cycle renewal for SCHIP allows parents to re-enroll their children into SCHIP at sites of care, regardless of the timing of their children's renewal cycle. The child's renewal cycle is then adjusted to correspond to the new renewal date. Massachusetts's early

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[1] Florida also had a passive renewal policy until July 2004.

[2] Prior to the Balanced Budget Act, the option to provide continuous coverage in Medicaid was limited to pregnant women (up to 90 days postpartum) and infants (Irvin et al. 2001).

experience with this strategy, known as "Member Express," reportedly continued coverage for 100 percent of families allowed to renew under this strategy (Cohen Ross and Hill 2003).

PREMIUM PAYMENT POLICIES

Twenty-eight states used premiums in 2004. Premiums may decrease retention for some families both because they reduce the affordability of coverage and because they are a monthly administrative hurdle to remaining enrolled. Two premium payment policies may affect retention. Grace periods enable families to retain SCHIP coverage when they forget or cannot afford to pay the premium. While most states have 30- to 60-day windows for payment, a few, such as Kansas and Maine, provide more generous windows, allowing children to remain enrolled for the remainder of their continuous coverage period (Steinberg 2004). Families are required to pay the overdue premiums prior to renewal if they wish to retain coverage for their children.[3]

Lock-out provisions are a second type of premium-related policy affecting retention. Lock-out provisions bar a previously enrolled family who has failed to pay their premiums from re-enrolling into SCHIP for a specified period. The intent of lock-out provisions is to reduce adverse selection by decreasing the incentive for families to stop paying premiums when they perceive that their children do not need care and re-enrolling them during times of need. Eleven states have lock-out provisions, most with lock-out periods of 30 to 90 days, although a few states specify periods of up to 6 months (Maine and California) or one year (Wisconsin) (Steinberg 2004).

POLICIES IMPROVING COMMUNICATION WITH SCHIP FAMILIES ABOUT RENEWAL

Forty-five states have implemented one or more strategies to educate and/or remind SCHIP families about the need to renew. These strategies include mailing renewal reminder notices, having caseworkers or outreach workers phone families on the termination list, and performing in-reach, that is, educating currently enrolled SCHIP families about renewal. Forty-three states and the District of Columbia mail renewal reminder notices to SCHIP families prior to the renewal period. Thirty states have caseworkers or outreach workers contact non-responding families. Eight states also target mailings to selected SCHIP populations as a form of in-reach.

POLICIES IMPROVING COORDINATION BETWEEN SCHIP AND OTHER PROGRAMS

Thompson (2003) identified three strategies associated with increased coordination between SCHIP and Medicaid: (1) use of joint renewal forms, (2) use of the same eligibility workers, and (3) establishment of central coordinating offices. States have also embarked on

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[3] In certain circumstances, states may waive remaining premium payments. For example, the Alabama SCHIP program forgives outstanding premium payments if a family has filed for bankruptcy during the enrollment year. The program also helps families locate sources of premium assistance through other state programs if needed.

efforts to support eligibility redetermination for SCHIP through other public programs. For example, express lane renewal uses family information collected from other programs to conduct an intermediate redetermination for SCHIP. Similarly, states use ex parte review to determine whether children can maintain their coverage under SCHIP or Medicaid through other eligibility categories within SCHIP or Medicaid prior to disenrolling them from the program.

Table A.1. Prevalence of Selected Policies Associated with Retention in SCHIP, FFY 2004

	Program Type	Maximum Income Threshold	Renewal Procedures			Premium Payment Policies		Communication Strategies		
			Mailing Preprinted Renewal Form with Current Info	Passive Renewal	Continuous Coverage (length in months)	Premiums	Enrollment Fees	Renewal Reminder Notices	Follow-up with Families by Outreach Workers	Targeted Mailings to Selected Populations
Number of States			30	3	32	28	3	43	30	8
Alabama	**S-SCHIP**	**200**	✔		**12**	✔		✔		
Alaska	M-SCHIP	175	✔		6			✔		
Arizona	S-SCHIP	200	✔		12	✔		✔	✔	✔
Arkansas	COMBO	200			12[b]			✔		
California	**COMBO**	**250**	✔ [b]		**12**	✔ [a]		✔	✔	
Colorado	**S-SCHIP**	**185**			**12**		✔	✔	✔	✔
Connecticut	S-SCHIP	300	✔			✔		✔		
Delaware	COMBO	200			12[a]	✔ [a]		✔	✔	✔
District of Columbia	M-SCHIP	200	✔					✔	✔	✔
Florida	**COMBO**	**200**	✔ [a]	[c]	**6[a], 12[b]**	✔ [a]		✔	✔	
Georgia	S-SCHIP	235	✔	✔		✔				
Hawaii	M-SCHIP	200	✔	✔						
Idaho	COMBO	185	✔		12	✔ [a]				
Illinois	**COMBO**	**200**	✔ [a]		**12**	✔ [a]		✔	✔	
Indiana	COMBO	200	✔			✔ [a]		✔	✔	
Iowa	COMBO	200	✔ [a]		12[a]	✔ [a]		✔		✔
Kansas	**S-SCHIP**	**200**			**12**	✔		✔		
Kentucky	**COMBO**	**200**	✔			✔ [a]		✔	✔	
Louisiana	**M-SCHIP**	**200**			**12**			✔	✔	
Maine	COMBO	200	✔		12	✔ [a]			✔	
Maryland	COMBO	300	✔ [b]			✔ [a]		✔	✔	
Massachusetts	COMBO	200				✔ [a, b]		✔		
Michigan	**COMBO**	**200**	✔ [a]		**12**	✔ [a]		✔	✔	
Minnesota	COMBO	280			10[a]			✔	✔	
Mississippi	S-SCHIP	200	✔		12			✔	✔	
Missouri	**M-SCHIP**	**300**				✔				
Montana	S-SCHIP	150	✔		12			✔		
Nebraska	M-SCHIP	185	✔		6			✔	✔	
Nevada	S-SCHIP	200	✔		12	✔		✔		

Table A.1 (*continued*)

	Program Type	Maximum Income Threshold	Renewal Procedures			Premium Payment Policies		Communication Strategies		
			Mailing Preprinted Renewal Form with Current Info	Passive Renewal	Continuous Coverage (length in months)	Premiums	Enrollment Fees	Renewal Reminder Notices	Follow-up with Families by Outreach Workers	Targeted Mailings to Selected Populations
New Hampshire	**COMBO**	**300**				✔ a	✔ a	✔	✔	✔
New Jersey	**COMBO**	**350**	✔			✔ a		✔	✔	✔
New Mexico	M-SCHIP	235						✔		
New York	**COMBO**	**250**	✔ b		12 b	✔ a		✔	✔	
North Carolina	**S-SCHIP**	**200**			12		✔	✔		
North Dakota	COMBO	140	✔		12 a			✔	✔	
Ohio	**M-SCHIP**	**200**			12					
Oklahoma	M-SCHIP	185	✔					✔	✔	
Oregon	**S-SCHIP**	**185**			6			✔		
Pennsylvania	S-SCHIP	200			12			✔	✔	
Rhode Island	COMBO	250				✔		✔	✔	
South Carolina	**M-SCHIP**	**150**			12			✔	✔	
South Dakota	COMBO	200						✔	✔	✔
Texas	**S-SCHIP**	**200**	✔		6	✔	d	✔	✔	
Utah	**S-SCHIP**	**200**	✔	✔	12	✔		✔	✔	
Vermont	S-SCHIP	300				✔		✔		
Virginia	COMBO	200	✔ a		12 a			✔	✔	
Washington	S-SCHIP	250	✔			✔				
West Virginia	S-SCHIP	200	✔		12			✔		
Wisconsin	M-SCHIP	185				✔		✔	✔	
Wyoming	S-SCHIP	185			12			✔	✔	

Source: Mathematica Policy Research analysis of FFY 2004 SCHIP annual reports for all states.
Note: States included in the literature synthesis are denoted in bold. Tennessee did not have a SCHIP program in FFY 2004.

M-SCHIP = Medicaid expansion SCHIP program; S-SCHIP = separate child health program; COMBO = state has both an M-SCHIP and an S-SCHIP program.

[a] S-SCHIP only.
[b] M-SCHIP only.
[c] Although Florida ended its passive renewal policy in July 2004, the policy was in effect during the periods covered by Dick et al. (2002) and Moreno and Black (2005) in their reviews of the Florida program.
[d] As of October 1, 2003, Texas no longer requires an enrollment fee.

APPENDIX B

MAJOR FINDINGS ON RETENTION FROM SELECTED STUDIES

Table B.1. Major Findings on Retention from Selected Studies

Authors(Year of Publication)[a]	Study Objectives	Data Sources	Outcome Measures	Major Findings on Retention[b]
Allison and LaClaire (2002)	To estimate disenrollment and reenrollment rates in Medicaid and SCHIP in Kansas; to examine the characteristics associated with disenrollment and reenrollment in Kansas.	Kansas administrative data (N = 239,650), 1999–2001	Disenrollment rates; reenrollment rates; demographic characteristics associated with disenrollment and reenrollment	Forty-five percent of SCHIP beneficiaries disenrolled after exactly 12 months (when continuous coverage elapsed). Beneficiaries who enrolled in person in either SCHIP or Medicaid were three times more likely to disenroll in the first year than those who enrolled through the mail. At least 35 percent of new public insurance enrollees churned within 30 months of initial enrollment. About 25 percent of initial SCHIP enrollees who disenrolled after 12 months reenrolled in either SCHIP or Medicaid within 1 to 3 months.
California Managed Risk Medical Insurance Board (2006a)	To estimate disenrollment rates in SCHIP in California by reason for disenrollment.	California administrative data (N = 201,628), 2003	Disenrollment rates	Fourteen percent of SCHIP beneficiaries disenrolled prior to the annual eligibility review, while an additional 16 percent disenrolled during the month of renewal. Excluding children who left SCHIP because of loss of eligibility or at applicant request, 11 percent of beneficiaries left prior to renewal and 14 percent left at renewal.
Dick et al. (2002)	To estimate disenrollment and reenrollment rates for SCHIP in Florida, Kansas, New York, and Oregon; to assess the links between disenrollment and the SCHIP policies of these states.	State SCHIP administrative data from Florida (N = 177,615), Kansas (N = 40,572), New York (N = 792,111), Oregon (N = 44,243), 1999–2001 for new enrollees with no SCHIP coverage in the 12 months prior to the study period	Probability of disenrollment by length of enrollment, by state; disenrollment rates, by state and premium level; probability of reenrollment by length of disenrollment, by state and premium level	In the three states with active renewal policies (KS, NY, OR), about half the enrollees dropped out immediately after the recertification period and most reenrollment occurred within the first 3 months after disenrollment. The presence of continuous coverage did not appear to affect disenrollment rates, but a 12-month renewal period (KS, NY) facilitated longer-term enrollment in SCHIP compared to a 6-month renewal (OR). Overall disenrollment was lower in FL, most likely because of passive renewal. Passive renewal appeared to stabilize enrollment patterns over time, with children leaving the program at a rate of 10 percent per month. Premium payers were more likely to disenroll than non-premium payers in NY but not in KS; however, KS has much longer grace periods than NY. Enrollees who pay premiums were more likely to reenroll than those without premiums. Presumptive eligibility was associated with increased disenrollment, but these rates should be interpreted with caution as some of the applicants would not have been eligible for the program (NY).
Herndon and Shenkman (2005)	To evaluate the effect on enrollment of Florida's transition from a passive to active renewal process.	Florida SCHIP administrative data, health care claims and enrollment data (N = 270,333), and telephone survey data from sample of families due to renew coverage (n = 588), 2004–2005	Rates of renewal, reenrollment at redetermination by health status and demographic characteristics	Disenrollment increased following Florida's transition from a passive to an active renewal process (27 percent vs. 5 percent in the renewal month). Of those who disenrolled during the six months following the renewal period, 67 percent disenrolled because of failure to complete the renewal process and 33 percent disenrolled because of failure to meet premium requirements. Four percent reenrolled in public coverage within the same six-month period. Children with lower health status, who were older, and who were at the higher and lower ends of the income distribution were more likely to disenroll (p <. 01). Sixty-four percent of those who disenrolled became uninsured. Disenrollment was defined as leaving all forms of public coverage (Medicaid, M-SCHIP, or S-SCHIP).

Authors(Year of Publication)[a]	Study Objectives	Data Sources	Outcome Measures	Major Findings on Retention[b]
Hill and Westpfahl Lutzky (2003)	To contrast the outcomes of redetermination and reasons for denials for SCHIP enrollees between eight states; to document variations in state data collection on disenrollment.	State SCHIP administrative data from Alabama (N = 1,132), California (N = 6,009), Colorado (N = 1,715), Florida (N = 13,214), Michigan (N = 537), Missouri (N = 1,946), New York (N = 84,463), North Carolina (N = 3,821), 2000	Rates of renewal outcomes (approval, denial and referral to Medicaid) at redetermination by state; breakdown of rates of denial by reason for denial at redetermination by state	Less than 50 percent of SCHIP enrollees appeared to retain eligibility at redetermination, generally ranging from 26 percent (MI) to 48 percent (AL). The most common reason for denial of SCHIP eligibility resulted from failure to complete the renewal process. Between 10 and 40 percent of enrollees failed to complete the renewal process by never responding to renewal notices or submitting renewal applications (AL, CO, MI, NC, NY).
Marton (2006)	To estimate the effect of the introduction of premiums in the Kentucky SCHIP program.	Kentucky SCHIP and Medicaid administrative data (N = 46,068), 2001–2004	Length of enrollment in SCHIP and Medicaid plans before and after introduction of premium; premium-related reasons for disenrollment; demographic characteristics	The Kentucky S-SCHIP program experienced a reduction in the length of enrollment after the introduction of premiums in December 2003. The probability of disenrollment was strongest in the two months immediately following the introduction of premiums (21 percent) but leveled off to just above baseline rates in the ensuing months (5.4% vs. 5%; p <. 01). Disenrollment was defined as leaving all forms of public coverage (Medicaid, M-SCHIP, or S-SCHIP).
Merrill and Rosenbach (2006)	To evaluate disenrollment and reenrollment in six state SCHIP programs.	State SCHIP administrative data from Kentucky (N = 107,465), New Jersey (N = 100,884), North Carolina (N = 102,456), Ohio (N = 190,815), South Carolina (N = 59,275), Utah (N = 37,710), 1999–2001 for new enrollees with no SCHIP coverage in the 6 months prior to the study period	Enrollment length and timing of disenrollment, disenrollment rates; transfers to Medicaid; reenrollment rates into SCHIP or Medicaid	Disenrollment varied widely across the six study states, both prior to and after redetermination. From 27 percent to 70 percent of children left SCHIP by the end of the renewal period. A substantial portion of the disenrolled population transferred to Medicaid. Twelve-month continuous coverage policies appeared to delay, but not prevent, disenrollment. Disenrollment declined over the study period.
Miller et al. (2004)	To estimate the duration of enrollment in the separate SCHIP program by SCHIP plan type in New Jersey; to contrast disenrollment rates by demographic characteristics.	New Jersey SCHIP administrative data (N = 41,881), 1998–2000	Disenrollment rates by SCHIP plan type (income/premium level); demographic characteristics of disenrollees; primary reason for disenrollment	Of children enrolled in SCHIP plans, 13 percent disenrolled from NJ KidCare within 9 months, 19 percent within 12 months, and 34 percent within 18 months. By 9 months, 6 percent of enrollees dropped out of Plan B, 15 percent from Plan C, and 17 percent from Plan D. Nonpayment of premiums account for 60 percent of all disenrollment from Plans C and D. Disenrollment rates within 12 months were higher among blacks than whites (in plans C and D). Blacks were 48 percent less likely than whites to disenroll from plan B relative to plan C (p < .01), but 8 percent more likely than whites to disenroll from plan D relative to plan C (p < .01). Disenrollment rates were also higher among young children (age 1–5) than older children, children with no siblings in family than children with siblings, and English speakers than Spanish speakers (p < .01).

Table B.1 *(continued)*

Authors(Year of Publication)[a]	Study Objectives	Data Sources	Outcome Measures	Major Findings on Retention[b]
Moreno and Black (2005)	To estimate disenrollment rates in SCHIP in California, Colorado, Florida, Illinois, Louisiana, Missouri, New York, New Jersey, North Carolina, and Texas; to examine reenrollment patterns of disenrollees.	State SCHIP administrative data for sample of surveyed SCHIP enrollees in the 10 states (n = 5,653), 2002 who had been enrolled at least 1 month but less than 3 months and had no SCHIP coverage in the 2 months prior to the study period	Disenrollment, reenrollment	Across the 10 states, an average of 41 percent of enrollees disenrolled within 12 months of enrollment. Two patterns emerged across states, with 4 states exhibiting strong retention until 12 months after enrollment and then a sharp decline (all of which offered 12 months of continuous coverage) and 6 states exhibiting a low but steady rate of decline since enrollment (2 of which offered 12 months of continuous coverage). Eleven percent of disenrollees returned to SCHIP within 3 months;17 percent of disenrollees returned to SCHIP within 6 months.
Riley et al. (2002)	To estimate the percentage of disenrollees who are potentially eligible; to document the reasons for disenrollment among families potentially eligible for SCHIP; to compare the demographic characteristics of potential eligibles disenrolled from SCHIP to current SCHIP enrollees.	Telephone survey of current SCHIP enrollees and SCHIP disenrollees (n = 3,780) in Alabama, Arizona, California, Georgia, Iowa, New Jersey, and Utah; focus groups of SCHIP disenrollees in California, New Jersey, and Utah, 2001	Percentage of disenrollees who are potentially eligible for SCHIP; reasons for disenrolling; current insurance status of disenrollees; demographic characteristics of disenrollees	Among disenrollees who remain eligible for SCHIP, 31 percent disenrolled because of nonpayment of premiums or not submitting the renewal application. Of the disenrolled children who may be potentially eligible, 62 percent were uninsured at the time of the survey. Most parents did not understand why their children lapsed in SCHIP coverage. Parents perceived premiums as affordable most of the time and had positive views about SCHIP. Compared to current enrollees, disenrollees were slightly less likely to use care and were older.
Shenkman (2002)	To evaluate the SCHIP and Medicaid programs in New Hampshire by examining enrollment, retention, access to care, beneficiary experiences with the program, and crowd-out.	New Hampshire SCHIP administrative data (N = 5,323) 1999–2000	Disenrollment rates	Fifty-six percent of SCHIP enrollees disenrolled from the program within 21 months. Although disenrollment rates were higher in months 11–12 and 18–19 than in other months, these increases were relatively smooth compared to those of other states for which similar data were available (NY, OR, KS). New Hampshire did not experience the dramatic spikes in disenrollment during renewal periods as did these other states.
Shenkman et al. (2002)	To evaluate the impact of four policy changes (expanded eligibility, lowered premiums for families within a certain income range, expanded mental health benefits, and a new 60-day waiting period before reenrollment for nonpayment of premiums) in Florida SCHIP on disenrollment and reenrollment rates.	Florida SCHIP administrative data (N = 36,648), fiscal years 1998–1999	Disenrollment rates by demographic characteristics before and after the policy changes; reenrollment rates by demographic characteristic before and after the policy changes	Children who enrolled through the eligibility expansion were 86 percent less likely to disenroll than those who had been eligible throughout the period (p < .01). Enrollees whose premiums declined were 97 percent less likely to disenroll than they were prior to the change for the average premium reduction of $5 (p < .01). Children with mental health diagnoses were twice as likely to disenroll after mental health benefits were expanded (p < .01). Instituting the 60-day waiting period to reenrollment increased disenrollment rates by 7 percent (p < .01), and lowered reenrollment by about 70 percent (p < .01).

Appendix B: Major Findings on Retention from Selected Studies

Table B.1 *(continued)*

Authors(Year of Publication)[a]	Study Objectives	Data Sources	Outcome Measures	Major Findings on Retention[b]
Shenkman, Schaffer, and Vargas (2002)	To estimate disenrollment rates for SCHIP in Texas; to examine the demographic characteristics associated with disenrollment in Texas.	Texas SCHIP administrative data (N = 646,326); telephone interviews with sample of disenrolled SCHIP families in Texas (n = 500), 1998–2000	Disenrollment rates; characteristics of disenrollees	Thirty-one percent of SCHIP enrollees who had continuous coverage for 12 months disenrolled by month 13, at renewal. Disenrollment rates were lower among children with special physical or mental health care needs than children without these needs (by 15% and 22%, respectively), older than younger children (by 18%), children in families with lower income than higher income (by 2% to 28%). Blacks were 16 percent more likely to disenroll than whites. Characteristics associated with lower reenrollment rates at renewal included physical and mental health care needs, lower family income, and older age.
Sommers (2005b)	To estimate disenrollment and retention rates for SCHIP and Medicaid in a national sample; to examine the association between SCHIP program structure and retention of public insurance.	Current Population Survey data (n = 8,473), 2001–2004	Disenrollment, program switching, and drop-out rates, by post-SCHIP insurance status	Sixty-three percent of SCHIP enrollees dropped out of SCHIP within 12 months; 28 percent of SCHIP enrollees transitioned to Medicaid. Of those leaving the SCHIP program, 45 percent were still eligible for some form of public insurance (SCHIP or Medicaid). States with S-SCHIP or combination programs demonstrated a lower rate of retention of public insurance compared to states with M-SCHIP programs. Greater SCHIP spending per enrollee and a more liberal state ideology were also associated with higher rates of retention of public insurance.
Trenholm (2005); Kenney and Trenholm et al. (2005)	To examine the insurance status of disenrollees in California, Colorado, Florida, Illinois, Louisiana, Missouri, New York, New Jersey, North Carolina, and Texas.	Survey of sample of SCHIP disenrollees in each of the 10 states (n = 4,085), 2001–2002	Post-disenrollment insurance status	On average, 48 percent of disenrollees were uninsured upon disenrollment across the 10 states. At six months post-disenrollment, 33 percent of disenrollees were uninsured; 35 percent were enrolled in Medicaid; 14 percent were reenrolled in SCHIP; and 18 percent had private insurance or other forms of coverage. Trenholm estimates that up to one-half of uninsured disenrollees were potentially still eligible for SCHIP at six months after exiting the program. Younger children and those living in rural areas were less likely to be uninsured at six months post-disenrollment.

[a]See references at the end of this report for full citations.
[b] P-values are reported when available.