Insurance

The Effect of Renewal Policy Changes on SCHIP Disenrollment

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Objective. To examine the impact of changing from a passive renewal process to an active renewal process in Florida's State Children's Health Insurance Program (SCHIP) on disenrollment.

Data Sources. Administrative records, containing enrollment and demographic data, were used to identify 414,396 enrollment spells from January 2004 through February 2006. Health care claims data were used to classify the children's health status.

Study Design. A Cox proportional hazards model was used to analyze the impact of changing to an active renewal process on the children's risk of disenrolling, controlling for the children's sociodemographic characteristics. Differential effects of the policy change by the children's health status were examined, and transfers to other public health insurance programs were taken into account.

Principal Findings. Children faced almost a 10-fold greater risk of disenrolling in their renewal month under active renewal than under passive renewal. We did not detect differential impacts of the policy change across children with different health status levels.

Conclusions. The switch to an active renewal process in Florida's SCHIP significantly increased disenrollment rates, and the effect of this policy change does not appear to vary by health status.

Key Words. SCHIP, public health insurance, renewal policies, retention, disenrollment

The State Children's Health Insurance Program (SCHIP) was enacted in 1997 to provide health insurance coverage for uninsured low-income children who do not meet Medicaid eligibility criteria. SCHIP was authorized for 10 years and was up for reauthorization in 2007. Because SCHIP is a capped grant and not an entitlement program, it has a fixed annual funding level and shortfalls were predicted to occur if federal funding was not expanded with the reauthorization. When faced with restricted funding in the past, states adopted

different strategies to control the size of their SCHIP caseloads, including adjusting the processes by which families apply for and renew their coverage. The Congressional Budget Office estimated that federal funding would need to be increased by \$7.8 billion over the next 5 years (2008–2012) to maintain current programs (Congressional Budget Office 2007). At the time of this writing, President Bush and Congress had reached an impasse over the amount by which SCHIP funding should be expanded, with the President twice vetoing reauthorization bills passed by Congress. As a temporary solution, federal SCHIP funding was extended through March 31, 2009 with the enactment of the Medicare, Medicaid, and SCHIP Extension Act of 2007 (S. 2499).

Motivating the national debate over SCHIP reauthorization are concerns about the appropriate income eligibility limit and crowd-out of employer-sponsored insurance. As a result, in addition to funding levels, SCHIP program eligibility is under examination. President Bush has emphasized refocusing “SCHIP on low-income, uninsured children below 200 percent of the Federal poverty level as the program was originally intended” (OMB 2007). In August 2007, the Centers for Medicare and Medicaid Services issued new guidance for providing coverage to children with family income above 250 percent of the federal poverty level (FPL). States must demonstrate that they have enrolled at least 95 percent of eligible children below 200 percent of the FPL in Medicaid or SCHIP and that employer-based coverage of low-income children has not decreased by more than two percentage points during the prior 5 years (CMS 2007). Consequently, states may reconsider how they conduct their eligibility determinations when children are due to renew their coverage.

States can meet federal eligibility screening requirements by using existing information from state and federal agencies, thereby allowing families to self-declare income. In 2007, however, only 9 SCHIP programs and 11 Medicaid programs allowed self-declaration of income (Ross, Horn, and

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Marks 2008). All other states required documentation to verify income. Interviews of SCHIP administrators and descriptive analyses of state administrative data indicate that active redetermination procedures, which require families to submit documents to verify their eligibility, are a significant barrier to enrollee retention (Hill and Lutzky 2003). Retention is important because children who experience interruptions in health insurance coverage are more likely to have worse access to care and greater unmet health care needs (Szilagyi et al. 2000; Olson, Tang, and Newacheck 2005).

A comparison of SCHIP renewal policies in four states found marked differences in retention based on the redetermination procedures used. Dick et al. (2002) analyzed SCHIP programs in Florida, Kansas, New York, and Oregon, using data from 2000 and 2001. Florida had a passive renewal process at the time, while the other states had active renewal processes. Under passive renewal, families whose children were in Florida's SCHIP, the Florida Healthy Kids Program (FHKP), received a letter notifying them about renewing their children's coverage. Families were asked to review the income information in the letter and report any changes to the FHKP. They also were asked to report changes in access to employer-sponsored health insurance for their children. Families who did not respond maintained their children's coverage if they continued to pay their premiums. The programs with active renewal processes required families to provide proof of income and complete renewal forms to continue coverage. Dick et al. (2002) found that 33–50 percent of children disenrolled at their first redetermination in the states with active renewal processes; in contrast, they found that 5 percent of children in the FHKP disenrolled at redetermination under the passive renewal process. More recent analyses of SCHIP enrollment patterns have used the renewal month as a control variable when examining the effect of premiums on enrollment and disenrollment behaviors (Kenney et al. 2007; Marton 2007), but none have explored the impact of a change in the renewal process on disenrollment.

This study examines the impact of renewal policy changes on the risk of disenrollment in the FHKP. In addition, we examine whether the policy changes had a differential impact on children with different health status levels. We also control for sociodemographic characteristics that may influence parents' decisions to renew their children's coverage. Effective July 1, 2004, the passive renewal process for the FHKP was replaced with active redetermination. The active renewal process requires families to complete a Renewal Request Form annually supplemented with (1) proof of income and (2) information about their access to employer-sponsored family coverage and the

cost of such coverage if it is available to them. If families do not provide all of the required documentation, their children are disenrolled from the program.

This study extends the analysis by Dick et al. (2002) in three ways. First, we use multivariate survival analysis techniques which allow us to examine multiple factors that may influence children's disenrollment at redetermination. These factors include family income, rural or urban residence, and child age, gender, and health status. This was not possible in the Dick et al. (2002) analyses because of differences in data availability across the states. Second, we take into account program transition, so a child is not considered disenrolled until s/he leaves public health insurance altogether. Finally, we include long-term program enrollees instead of including only children who were newly enrolled during the observation period.

FLORIDA'S ACTIVE RENEWAL PROCESS

When the active renewal process went into effect, redetermination occurred every 6 months. Children who were enrolled at the time of the policy change were required to renew coverage on their regular 6-month renewal cycle. The active renewal process provided for a 60-day notification and response period. Families were sent letters 2 months before their renewal date. If families did not submit any renewal information, their accounts were cancelled effective on their renewal date. During our study period, families who submitted incomplete information before their renewal date were granted 4 months from their renewal date to complete the process before cancellation.¹ For example, renewal letters were mailed at the beginning of January 2005 for enrollees with a March 1, 2005 renewal date. Families who did not submit any renewal documentation were cancelled effective March 1, 2005. Families who submitted incomplete renewal documentation by March 1 had until June 30, 2005 to complete the process; otherwise, they were cancelled effective July 1, 2005. Families who completed the documentation requirements by June 30 underwent an eligibility redetermination process, including Medicaid screening.

We identify three time periods for the purposes of our study. (1) The "pre" period is from January 1, 2004 through June 30, 2004 when the renewal process was passive. (2) The "transition" period is from July 1, 2004 through February 28, 2005, which encompasses a 2-month administrative transition period in July and August (during which there were no renewals) and the first 6-month active renewal period from September 1, 2004 to February 28, 2005. (3) The "post" period is from March 1, 2005 through February 28, 2006. For

the reasons described below, our focus is on comparisons of the pre- and postperiods.

The transition period includes the first complete 6-month renewal cycle after the policy change. To allow for the 60-day notification period, the FHKP sent Renewal Request Forms to all active accounts between July 2004 and December 2004 for September 2004 through February 2005 renewals. This initial active renewal period was atypical from subsequent renewal cycles in two important ways. First, Florida experienced an unusually severe hurricane season during the fall of 2004, and the state postponed program cancellations for the months of September through November until December, resulting in a large spike in disenrollment in December. Second, the active renewal policy requirements were modified in two ways by a special session of the legislature: (1) the earned income documentation requirements were reduced from three documents to one document, and (2) redetermination frequency changed from 6 to 12 months. These modifications were effective January 1, 2005. In practice, these changes applied to March 2005 renewals because renewal notices are mailed 2 months in advance. Consequently, although we control for the disenrollments that occurred during the transition period in our model, we focus on comparisons between the passive renewal policy in place before July 2004 and the relatively stable postperiod with the modified active renewal policy from March 1, 2005 through February 28, 2006.

Figure 1 summarizes the monthly disenrollment patterns in the FHKP during our study period. During the preperiod, monthly disenrollment rates

Figure 1: Monthly Disenrollment in the Florida Healthy Kids Program, January 2004–February 2006.

ranged from approximately 2 to 3 percent of the total caseload. During the transition period, monthly disenrollment rates were just over 1 percent of the caseload from September 2004 through November 2004 when cancellations were postponed. Owing to the accumulated cancellations, there was a spike in disenrollment equal to 20 percent of the total caseload (approximately 50,000 children) in December 2004. Monthly disenrollment rates were relatively stable during the postperiod beginning March 2005, but higher than during the preperiod, ranging from approximately 4 to 6.5 percent of the total caseload.

METHODS

Data Sources

The FHKP provided person-level enrollment files containing information about the children's age, gender, family income, place of residence, and monthly enrollment status. These files were used to obtain the children's sociodemographic characteristics and to determine their enrollment spell lengths. The FHKP enrollment files were linked to the Medicaid and the state Title V Children with Special Health Care Needs (CSHCN) program enrollment files to take into account transition to another public insurance program. The Title V program serves children eligible for Title XIX (Medicaid) or Title XXI (SCHIP) funding who meet clinical eligibility criteria for special health care needs.

The enrollment files also were matched to health care claims and encounter data submitted by health plans participating in the FHKP. The person-level claims and encounter data contain Physician's Current Procedural Terminology (CPT) codes and International Classification of Diseases, 9th Revision (ICD-9-CM) codes. These data were used to classify the children's health status during their enrollment spells.

Sample Selection

The University of Florida Health Sciences Center Institutional Review Board approved this project. All children enrolled in the FHKP for at least two consecutive months between January 2004 and February 2006 were included in the analyses. This time period captures the 6-month period before the policy change, which constituted a complete renewal cycle, and 20 months after the policy change. Children age 18 and older were excluded so that those who were aging out of the program would not be included in the analyses.

Children frequently disenroll and reenroll in public insurance programs. Each period of enrollment is called an enrollment spell. We analyzed 414,396 enrollment spells for 383,013 children. Ninety-two percent of the children had one enrollment spell, 7 percent had two enrollment spells, and < 1 percent had more than two enrollment spells. Of those who had a single enrollment spell, 46 percent completed that spell and 54 percent were right censored. Using the Kaplan–Meier product–limit estimator, the estimated median survival time before the change to active renewal was 91 months compared with 18 months during the postperiod after the policy change.

Variables and Measures

Enrollment and Disenrollment Spells. The outcome of interest is the children's risk of disenrolling. A child's enrollment spell is equal to the number of months between the first month of coverage and either the month of disenrollment or right censoring. Children were right censored if they turned age 18 during the enrollment spell or if they were still enrolled through the last month of our study. Right censoring is used in these two cases to indicate that we no longer observe the children's enrollment after these time points.

The beginning of an enrollment spell is defined as two consecutive months of enrollment in the FHKP. Because children could transfer from the FHKP to the State Title V CSHCN Program or Medicaid due to changes in eligibility status, children were considered disenrolled only if they were not enrolled in any of these public insurance programs for at least two consecutive months. Two consecutive months was selected to address administrative changes in the enrollment files that do not reflect actual changes in the continuity of health coverage. Disenrolled children began a new enrollment spell if they were subsequently enrolled for at least two consecutive months.

Prior Enrollment and Program Transition. We did not restrict our analyses to new enrollees because we also wanted to include the impact of the renewal policy changes on long-term enrollees. Approximately 67 percent of our sample had an enrollment spell in progress at the beginning of the observation period. For those children, we accounted for the number of months of continuous enrollment before January 2004 in our analyses to provide information on longer-term enrollments. As described above, children were not considered to be disenrolled until they left public insurance altogether. However, we included a categorical "program transition" variable in our model to indicate whether the children

transferred from Florida's SCHIP to Medicaid or the State Title V CSHCN Program during their enrollment spells because program transitions may influence enrollment length.

Renewal Policy Variables. We used the administrative enrollment files to determine each time a child was due to renew coverage during his/her enrollment spell. A dummy variable named "renew" that is equal to "1" in the child's renewal month(s) was constructed. When active renewal was implemented, families were given a grace period of 120 days to complete the renewal process if they submitted any renewal documentation by their renewal date. Children in families who triggered the grace period but who did not successfully complete the process were disenrolled at the expiration of the grace period. Consequently, we also constructed a dummy variable labeled "gracexp" to signify when the grace period expired to capture these renewal-related disenrollments.

Three time-varying dummy variables were created to capture the three time periods of interest related to the renewal policy changes: (1) The variable "pre" represents the period January 1, 2004 through June 30, 2004 when the renewal process was passive and families were not required to submit any paperwork. (2) The variable "trans" represents the transition period from the passive renewal process to the active renewal process, spanning July 1, 2004 through February 28, 2005. This encompasses a two-month administrative transition period in July and August, during which there were no renewals, and the first 6-month active renewal period from September 1, 2004 to February 28, 2005. (3) The variable "post" represents the period from March 1, 2005 through February 28, 2006, which constitutes the first full year of active renewals after the renewal requirements were reduced from three to one earned income verification document and the redetermination period was changed to 12 months.

Because active renewal during the transition period was complicated by several factors (2 months during which there were no renewals, stricter documentation requirements than were subsequently required, and the postponement of cancellations during the first 3 months of the active renewal process), we do not focus on the specific renewal effects during this period. However, the "trans" variable controls for the disenrollments that occurred during this period.²

Interaction between Renewal Month and Renewal Policy Change. We also included an interaction variable "post by renew" to capture the effect of being up for

renewal after the change to active renewal, because the policy change is expected to have its primary impact in the renewal month as opposed to the nonrenewal months.

Children's Health Status. A categorical health status variable was constructed using the Clinical Risk Groups (CRGs) to classify the children's health status. The CRGs uses ICD-9-CM diagnosis codes from all health care encounters, except those associated with providers known to frequently report unreliable codes (e.g., nonclinician providers and ancillary testing providers), to assign individuals to a hierarchically defined core health status group (Neff et al. 2001). The CRGs has been tested and validated for identifying children with special health care needs (Neff et al. 2001; Bethell and Read 2002). Children more than 12 months old must be enrolled for at least 6 months to be classified. This time frame allows for a sufficient claims history for classification.

The CRGs has nine health status categories that were reduced to the following five groups using instructions from the developers: (1) healthy (including nonusers of health care services), (2) significant acute conditions (e.g., meningitis and traumatic brain injury), (3) minor chronic conditions (e.g., asthma and attention deficit disorder), (4) moderate chronic conditions (e.g., diabetes and depression), and (5) major chronic conditions (e.g., cystic fibrosis, cancer, and schizophrenia). Children not meeting the minimum enrollment criteria of 6 months for CRG classification are labeled "unclassified." Unclassified children include new enrollees and children who cycle in and out of the program.

Children's health status can change across time, which may influence families' decisions about renewing their children's coverage. Therefore, we classified the children's health status at 6-month intervals throughout the study period. Four different time frames for the claims and encounter data were used to initially classify the children's health status and to update their health status over time. Six-month intervals were selected in order to meet the CRG classification criteria. Claims and encounter data from July 2003 through June 2004 were used to classify the health status of spells that were left truncated at January 2004 and to new enrollment spells originating from January 2004 through June 2004. The children's CRG classification was updated every 6 months (at July 2004, January 2005, and July 2005) by advancing the claims and encounter data time intervals by 6 months for each new classification. Up to 12 months of data were used at each update to classify the children.

Demographic Variables. The following demographic characteristics were included: family income as a percentage of the FPL, child age, and child gender. An indicator of rural versus urban residence was constructed from Rural-Urban Commuting Areas (RUCA) codes (Economic Research Service 2000). The codes categorize a family's residence using the zip code and census tract. The RUCA categories were collapsed to represent metropolitan/large town areas versus small town/rural areas.

Analytic Methods

A Cox proportional hazards model was used to analyze the impact of the renewal policy changes and the impact of sociodemographic characteristics and child health status on the children's risk of disenrollment. Recent analyses of SCHIP enrollment behavior used Cox proportional hazards models (e.g., Shenkman et al. 2002; Kenney et al. 2007; Marton 2007). Because children could have more than one spell, robust standard errors were calculated and adjusted for clustering using the children's identifier variable.³ We used *Stata 9* to perform these analyses (Stata Corporation 2005).

Enrollment spells in progress at the start of the study period were treated as left truncated observations. Left truncation indicates that the child was "at risk" for disenrollment before coming under observation (Hosmer and Lemeshow 1999). The likelihood of disenrollment may be influenced by the prior enrollment length and therefore must be treated as conditional on already having been enrolled for a period of time. We used the prior enrollment variable previously described to account for when the children came at risk. The inclusion of prior enrollment length is important to accurately capture the effect of the renewal policy changes on the risk of disenrollment for longer-term enrollees.

RESULTS

Descriptive Statistics

Table 1 contains the descriptive characteristics for the sample using the children's enrollment spells weighted by the spell length. The majority of spells included children from families with income of 101–150 percent of the FPL (56 percent) and children who were healthy (73 percent). Six percent of the weighted enrollment spells included a transfer to Medicaid, and < 1 percent included a transfer to the Title V CSHCN Program. A slight majority of the

Table 1: Descriptive Statistics for the Sample by Weighted Enrollment Spells

<i>Characteristic</i>	<i>Percentage</i>
<i>FPL</i>	
101–150%	55.89
151–200%	24.74
>200%	19.37
<i>Health status</i>	
Healthy	73.45
Significant acute	6.35
Minor chronic	5.10
Moderate chronic	5.04
Major chronic	0.56
Unclassified	9.50
<i>Program transition</i>	
No transfer	93.61
Transfer to Medicaid	6.21
Transfer to Title V CSHCN Program	0.18
<i>Age</i>	
0–4	1.72
5–11	51.32
12–17	46.96
<i>Gender</i>	
Male	50.93
Female	49.07
<i>Residence</i>	
Rural	7.41
Urban	92.56

FPL, federal poverty level; CSHCN, Children with Special Health Care Needs

sample were 5–11 years old (51 percent), while 47 percent were 12–17 years old. Gender was approximately equal, and the place of residence was classified as urban for 93 percent of the spells.

Multivariate Results

Table 2 presents the hazard ratio (HR) results from the Cox proportional hazards model examining the impact of the renewal policy changes, the children's health status, and sociodemographic characteristics on disenrollment. The HR is the exponentiated model coefficient and reflects the variable's impact on the children's relative risk of disenrolling (Kleinbaum and Klein 2005). The HR for the reference group is 1.00 and represents the risk of disenrolling for a healthy male child age 0–4 with a family income below 150 percent of the FPL in urban areas during a nonrenewal month before the

Table 2: Cox Proportional Hazards Model for Disenrollment from the FHKP, January 2004–February 2006

	Model Results			
Variable	Hazard Ratio	p-Value	95% Confidence Intervals	
Time period				
(Pre)*	1.0000			
Trans	3.8417	.000	3.7768	3.9077
Post	1.7536	.000	1.7204	1.7874
Renewal status				
(Nonrenewal month)	1.0000			
Renewal month	1.5091	.000	1.4553	1.5648
Post by renew interaction				
March 2005 forward and renewal month	5.5996	.000	5.3838	5.8240
Grace period expiration				
(Nongrace-expiration month)	1.0000			
Grace expiration month	3.5254	.000	3.4513	3.6010
Health status				
(Healthy)	1.0000		1.0000	
Significant acute	0.4556	.000	0.4443	0.4672
Minor chronic	0.5981	.000	0.5841	0.6125
Moderate chronic	0.5836	.000	0.5697	0.5978
Major chronic	0.4596	.000	0.4242	0.4980
Unclassified	1.5514	.000	1.5263	1.5769
Income as a % of FPL				
(101–150% FPL)	1.0000		1.0000	
151–200% FPL	0.8574	.000	0.8480	0.8670
> 200% FPL	1.0490	.000	1.0377	1.0605
Program transition				
(No transfer)	1.0000		1.0000	
Transfer to Medicaid	2.6562	.000	2.6200	2.6929
Transfer to Title V CSHCN Program	0.4334	.000	0.3811	0.4929
Age				
(0–4)	1.0000		1.0000	
5–11	1.0023	.895	0.9691	1.0366
12–18	1.0651	.000	1.0295	1.1019
Gender				
(Male)	1.0000		1.0000	
Female	0.9993	.878	0.9909	1.0078
Residence				
(Urban)	1.0000		1.0000	
Rural	0.9526	.000	0.9367	0.9688

Note: *Reference category is indicated in parentheses.

FHKP, Florida Healthy Kids Program; FPL, federal poverty level; CSHCN, Children with Special Health Care Needs

policy change. HRs > 1.00 indicate an increased risk of disenrolling relative to the reference group, and Rs < 1.00 indicate a decreased risk.

The renewal policy change variables (time period, renewal status, grace period expiration, and the interaction term “post by renew”) are statistically significant predictors of disenrollment after accounting for the other independent variables in the model (health status, income, program transfers, age, gender, and residence). In addition, the children’s health status, sociodemographic characteristics (except gender), and program transfers influenced disenrollment. The primary result of interest is the effect of the renewal policy changes on the children’s risk of disenrollment. As described previously, it is not sufficient to examine the time period (before and after the policy change) and renewal status (renewal month or nonrenewal month) main effects in isolation because it is the two combined—being up for renewal after the change to active renewal—that captures the full effect of the policy change. Therefore, rather than discussing the individual model coefficients in Table 2 for these variables, we present in Table 3 the results of combining the main effects of the renewal policy variables and the interaction variable “post by renew” from Table 2.

Table 3 provides the children’s monthly risk of disenrolling predicted from the model by renewal status and time period. The risk of disenrolling is an absolute risk expressed in percentage terms. These data are presented for children with the mean characteristics. The average baseline hazard rate predicted from the Cox model for children in a nonrenewal month under passive renewal is estimated to be 0.86 percent, indicating that the average child had a

Table 3: Estimated Effects of the FHKP Renewal Policy Changes on the Children’s Risk of Disenrolling

<i>Renewal Status</i>	<i>Prior to Policy Change: Passive Renewal Risk of Disenrolling</i>	<i>After Policy Change: Active Renewal Risk of Disenrolling</i>
<i>Children with mean characteristics*</i>		
Nonrenewal month	0.86%	1.51%
Renewal month	1.30%	12.74%
Grace period expiration [†]	NA	5.32%

*The average baseline hazard rate for disenrolling during a nonrenewal month prior to the policy change of 0.86% was calculated at the means of the other covariates (income, health status, age, gender, residence, and program transition).

[†]The grace period did not apply during the passive renewal process.

FHKP, Florida Healthy Kids Program; NA, not applicable

< 1 percent risk of disenrolling in a nonrenewal month under Florida's passive renewal process. Under passive renewal, children faced an increased risk of disenrollment in their renewal month of 1.30 percent compared with 0.86 percent. Thus, children were approximately one and half times as likely to disenroll when they were up for renewal. After the change to active renewal, the children's risk of disenrolling in their renewal month increased significantly to 12.74 percent compared with a risk of 1.51 percent in a nonrenewal month during the same period. Thus, children were about eight times as likely to disenroll in their renewal month as in a nonrenewal month after the change to active renewal. Comparing disenrollment in the renewal month before (1.30 percent) and after (12.74 percent) the policy change indicates that the children's risk of disenrolling in a renewal month increased almost 10-fold with the change to active renewal. This does not capture the full effect of the change to active renewal on disenrollment, however, because families who submitted incomplete renewal documentation had a 4-month grace period to submit missing information before being cancelled. The grace period expiration variable captures this effect. The children's risk of disenrollment under active renewal was 5.32 percent in the month following the end of the grace period compared with 1.51 percent in a typical nonrenewal month, indicating that children were more likely to disenroll in the month after the grace period ended than in other nonrenewal months. These findings were obtained after accounting for transfers to other public insurance programs.

We also were interested in whether there were differential effects of the change to active renewal by the children's health status. We included a three-way interaction of "post by renew by health status" to see if the policy effect depended on the children's health status. The interaction terms were not significant, so we were unable to detect a differential policy effect (model results not shown). However, the main effects of health status reported in Table 2 indicate that, overall, healthy children are significantly more likely to disenroll than children with significant acute or chronic conditions. Healthy children were 54 percent more likely to disenroll than children with significant acute and major chronic conditions and 41 percent more likely to disenroll than children with minor and moderate chronic conditions.

DISCUSSION

The focus of our study was the effect on disenrollment of changing from a passive renewal process to an active renewal process in Florida's SCHIP. The

children's risk of disenrolling increased significantly after the change to active renewal, with almost a 10-fold increase in disenrollment in a renewal month after the policy change. On average, the risk of disenrollment in a renewal month was 1.30 percent under passive renewal and 12.74 percent under active renewal.

These findings are consistent with prior research, which found that active renewal is associated with an increased risk of disenrollment relative to passive renewal (Dick et al. 2002). However, the hazard rate for disenrollment of 12.74 percent at redetermination under active renewal in Florida is considerably less than the 33–50 percent observed in the other states examined by Dick et al. (2002). Part of this difference may reflect the fact that families in the FHKP who submitted incomplete renewal information before their renewal date had a 4-month grace period to provide the missing information. Families who did not provide the required information did not lose coverage until the grace period expired. In addition, our analysis overcomes some of the data limitations of the earlier multi-state analysis. In the present study, we did not consider a child to be disenrolled until s/he left public insurance altogether. We also included long-term enrollees as well as new enrollees; therefore, our disenrollment rates at redetermination reflect an enrollee pool with significant variation in the children's enrollment lengths. In contrast, the 33–50 percent hazard rates reported in Dick et al. (2002) reflect disenrollment at the children's first redetermination, but they also found some evidence of lower hazard rates at subsequent redeterminations. As families gain experience with the renewal process over time, the risk of disenrolling at renewal may decrease. Experience with the initial application process may also affect families' experiences with the renewal process. The increased documentation requirements that applied to the active renewal process in the FHKP also were implemented at the same time for the application process. Families who successfully completed the application process under the new requirements may have been more likely to later successfully complete the renewal process compared with families who enrolled in the FHKP when self-declaration of income was permitted. To the extent that this was true for families during our study period, the hazard rates we found may be lower than they would have been in the absence of stricter initial enrollment requirements.

We also examined whether the effect of the renewal policy changes varied according to the children's health status. The main effects indicate that children with significant acute and chronic conditions are less likely to disenroll overall than healthy children. However, we were unable to detect differential impacts of the policy change across children with different health

status levels, which is consistent with the active renewal requirements not impacting sicker children differently than healthy children. This finding is in contrast to those of studies examining the impact of premium increases on disenrollment in SCHIP. Families whose children have chronic conditions are relatively insensitive to premium increases of about \$5 per family per month compared with families whose children are healthy (Shenkman et al. 2002; Herndon et al. 2008). While paying an increased premium is likely a burden for families whose children have chronic conditions, they understand the process for making the payments and are willing to pay more. However, increased documentation appears to create barriers that cut across health status groups. Low income children with chronic conditions often need long-term care and monitoring for their conditions, and access to this care may be compromised when they lose their insurance coverage (Shenkman et al. 2007).

States are understandably concerned with ensuring that only eligible children remain in their SCHIP programs. The reasons for disenrollment were not included in the administrative data set used for this study. However, a survey of 287 families who did not successfully renew their children's coverage during the first active renewal cycle in the FHKP found that 45 percent identified issues related to the renewal process or paperwork requirements as reasons for not getting their coverage renewed with half of those indicating that they could not provide the required background information. Twenty-five percent responded that they did not renew coverage because they did not think their child was eligible anymore (Herndon and Shenkman 2005). A survey of state SCHIP administrators in five states found that a range of 1–23 percent of children lost coverage because they no longer met the eligibility criteria, 2–24 percent of children lost coverage because their families did not comply with the renewal procedures (e.g., they submitted an incomplete application), and 9–40 percent of children were disenrolled because their families did not respond to the renewal notices (Hill and Lutzky 2003). Because children in these latter two categories do not undergo eligibility screening due to lack of information, we do not know their eligibility status; however, it is safe to assume that both eligible and ineligible children are included.

Our findings have implications for potential changes to SCHIP that may occur under the current CMS guidance and with reauthorization of the program. Policy changes that increase the burden on families to prove program eligibility at each redetermination are likely to significantly increase disenrollment rates among eligible as well as ineligible children, thereby increasing the risk of children becoming uninsured. Surveys of SCHIP disenrollees in-

dicate that approximately one-half of children who leave SCHIP are uninsured, and many remain uninsured for 6 months or more (Wooldridge et al. 2005). States can promote program integrity by verifying continued program eligibility through federal and state databases and using random posteligibility verification checks (Cox 2001). Doing so would allow states to simultaneously promote retention of eligible children by minimizing paperwork and documentation requirements that are not required by federal law.

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NOTES

1. The extended grace period was changed to 30 days effective August 1, 2006, which is outside of the time frame for our study.
2. During the transition period, assigning a value of “renew” = 1 during the renewal month was problematic because renewal-related cancellations did not occur in the renewal month for September 2004–November 2004 renewals due to the hurricane-related postponements; that is, assigning a value of “renew” = 1 during these months did not capture renewal-related disenrollments. We verified the robustness of our reported results by including the interaction term “trans by renew” in the model and using three different approaches for defining the renewal month variable during the transition period: (1) assigning “renew” = 0 during the entire period (as if there were no renewals during this period), thereby using the transition variable to capture the entire effect of disenrollment during that period; (2) reassigning the renewal month for children with September 2004–November 2004 renewals to December 2004 because cancellations for these months were postponed until December; and (3) reassigning the December 2004 disenrollments for children with September to November renewals to the renewal month, which simulated when the children would have been disenrolled if there had been no cancellation postponements. The model results of the nontransition variables (all variables except “trans” and “trans by renew”) are robust across these three approaches, which indicates that the transition variable effectively captures the effect of disenrollments during this period. We report the results using the first approach, which uses “trans” to capture the effect of disenrollment during the transition period,

because our primary focus is on comparing the effect of active renewal during the more stable postperiod to the passive renewal process. Because “renew” = 0 throughout the transition period in this approach, the interaction term “trans by renew” is dropped from the model due to perfect collinearity with “trans.”

3. We also verified our results by including a dummy variable in the model that signified whether a child had more than one enrollment spell during our observation period. The policy effects remained essentially unchanged with the inclusion of this variable.

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SUPPLEMENTARY MATERIAL

The following supplementary material for this article is available online:
Appendix SA1: Author Matrix.

This material is available as part of the online article from <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1475-6773.2008.00866.x>
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