

# Evaluation of Wisconsin's BadgerCare Plus Health Care Coverage Program

## Report #2

Enrollment, Take-Up, Exit, and Churning:  
Has BadgerCare Plus Improved Access to and Continuity of Coverage?

Submitted to the Wisconsin Department of Health Services  
December 2010



UNIVERSITY OF WISCONSIN

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*Translating Research for Policy and Practice*

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## **Preface: BadgerCare Plus**

Wisconsin's BadgerCare Plus program was designed to ensure access to health insurance coverage to virtually all Wisconsin children and to bolster coverage for parents and other caretaker adults. The program, launched in February of 2008, expanded upon BadgerCare (Wisconsin's Children's Health Insurance Program) and Medicaid. Its reforms included eligibility expansions; simplification of eligibility rules and enrollment and verification processes; and an aggressive marketing and outreach campaign.

BadgerCare Plus eliminated the income eligibility ceiling for children. Coverage operates as a single program with two insurance products: the Standard Plan, for enrollees < 200% Federal Poverty Level (FPL), and the Benchmark Plan, for enrollees >200% FPL. The former is the traditional Medicaid plan and requires only minimal cost-sharing, while the latter is comprised of a more limited set of covered services and requires co-payments on non-preventive services, similar to private insurance policies.

The premium threshold for children was set at 150% FPL under BadgerCare and was raised to 200% FPL under BadgerCare Plus. Modest-income children (200-300% FPL) enrolled in the Benchmark Plan are subject to premium payments that increase with family income level; premiums start at \$10 per month and are capped at 5% of total monthly income. The families of higher-income children (> 300% FPL) are required to pay the full cost of coverage in the Benchmark Plan, which amounted to approximately \$100 per month in 2008.

In contrast to the 200% income threshold imposed for children, the sliding-scale premium begins at 150% FPL for parents and caretakers; again, with total family premium contributions capped at 5% of monthly income. BadgerCare Plus also includes caretaker relatives in its definition of parental eligibility.

Prior to the launch of BadgerCare Plus, anti-crowd-out provisions were applied in the BadgerCare program but not in the Medicaid program. Under BadgerCare Plus, applicants with incomes over 150% FPL are subject to anti-crowd-out provisions. With good-cause exceptions, these individuals face a three-month waiting period for dropped coverage and they cannot have been offered employer-sponsored insurance (ESI) during the past 12 months or have the opportunity to enroll in ESI during the upcoming 3 months. The employer must cover at least 80% of the premium for the crowd-out provisions to apply.

## I. Enrollment Trends

*Purpose:* To calculate enrollment growth subsequent to the launch of BadgerCare Plus and assess the extent to which the socioeconomic composition of program enrollees changed over the study period.

### *Data and Methods*

Administrative data used in the study covers the period January 2007 to November 2009.. The analytic sample is comprised of 1,310,812 unique enrollment spells contributed by 985,092 unique individuals. We computed total program enrollment by month over the course of the study, in aggregate and stratified by both age group and income group.

### *Results*

Table 1 displays pre-period and post-period enrollment numbers for children (Figure A) and adults (Figure B). Month-by-month enrollment and exit figures are available upon request.

Data through November 2009, compared to December 2007 baseline enrollment in the former BadgerCare (CHIP), family Medicaid, and Healthy Start programs, demonstrate that children in lower income groups contributed more to increases in enrollment than did children of higher income levels. (Table 1) The number of children enrolled in the program increased 29% in that period. Over half (58%) of this increase was among children under 150% federal poverty level (FPL), all of whom would have been eligible for BadgerCare, Healthy Start, or family Medicaid (<185% FPL) under program rules in effect prior to the implementation of BadgerCare Plus. This suggests that program simplification measures, branding and targeted outreach strategies were effective in drawing in newly eligible and also many eligible-but-not-enrolled individuals, an outcome referred to in the literature as the “welcome mat”<sup>1</sup> or “woodwork”<sup>2</sup> effect.

## II. Access and Continuity

### A. Take-up

Comparison of BadgerCare Plus enrollment numbers to CPS estimates of uninsured Wisconsin children in 2008-2009 suggests a robust rate of program take-up. (Table 2) Wisconsin children, as a whole, show a ratio of the change in enrollment to the number of uninsured (a measure of take-up) of 88%. This ratio is 107% for children below 150% FPL and 140% for children between 150% and 200% FPL, greater than the number than had previously been classified as uninsured in these groups. The ratio is 54% for children between 200% and 300% FPL and 13% for children above 300% FPL. For children in rural counties, this ratio is 63%, while for urban children the ratio is 193%.

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<sup>1</sup> Arjun, L., and J. Guyer. 2008. “Putting Out the Welcome Mat: Implications of Coverage Expansions for Already-Eligible Children.” Available at <http://ccf.georgetown.edu/index/cms-filesystem-action?file=strategy%20center/putting%20out%20the%20welcome%20mat.pdf>

<sup>2</sup> Center for Children and Families, Georgetown University Health Policy Institute. 2007. Making Real Gains for Children: Strategies for Reaching the More Than Six Million Uninsured Children Eligible for Medicaid and SCHIP! [accessed on October 16, 2009]. Available at <http://www.childrepartnership.org/AM/Template.cfm?Section=Home&Template=/CM/ContentDisplay.cfm&ContentID=11117>

**Table 1.**  
**Change in Number Enrolled by Age Group and Income Level**  
**December 2007 to November 2009**

Children					
% FPL	Dec-07	Nov-09	Change	% change	% of change
<150	321,239	377,615	56,376	18%	58%
150-200	17,671	41,375	23,704	134%	24%
200-300	246	14,493	14,247	5791%	15%
300+	58	2,906	2,848	4910%	3%
All	339,257	436,409	97,152	29%	100%
Parents/Caretakers					
% FPL	Dec-07	Nov-09	Change	% change	% of change
<150	166,880	226,009	59,129	35%	74%
150-200	9,625	27,307	17,682	184%	22%
200+	157	3,750	3,593	2289%	4%
All	176,685	257,068	80,383	45%	100%

There are several reasons why the apparent take-up rate might exceed 100%: To the extent that the CPS estimate undercounts the number of uninsured children in Wisconsin, the ratio of change in enrollment to the number of uninsured will overstate the take-up rate. Additionally, the high rate of take-up may be an artifact of the likely increase in the uninsured since the 2008/2009 CPS, as an increase in the uninsured would increase the pool of income-eligible uninsured children. The ratio is also affected by differences in income-reporting within CPS and BadgerCare Plus.

It is possible that an increase in take-up may suggest migration from private insurance to public coverage. The figures reported here have been adjusted for such migration using estimates of crowd-out developed elsewhere in this research project. (See accompanying report on target efficiency and crowd-out.)

Comparison of BadgerCare Plus enrollment to CPS estimates of uninsured parents/caretakers indicates more contained take-up rates (again measured as the ratio of the change in enrollment to the number of uninsured). (Table 3) Uninsured caretakers as a whole show a take-up rate of 49%, while caretakers below 150% FPL show a 73% take-up rate, and caretakers between 150% and 200% FPL show a 65% take-up rate. After adjusting for other third-party coverage, we find only a 4% take-up rate among uninsured enrollees between 200-300% FPL. Caretaker adults in rural counties show a 75% take-up rate, compared to 39% for their urban counterparts. Here again, these ratios for adults could be overstated, to the extent that the CPS estimate undercounts the number of uninsured adults in Wisconsin.

**Table 2. Take-Up Rates, Children**

<b>Children</b>							
<b>Estimated Size of the Population (2008/2009 CPS)</b>							
	All	< 150	150-200	200-300	300+	Urban	Rural
Population	1,407,822	374,615	108,460	280,589	644,157	1,068,404	339,418
Uninsured	82,114	40,768	10,377	17,033	13,935	67,132	14,982
<b>Increase in Enrollment – Children</b>							
	All	< 150	150-200	200-300	300+	Urban	Rural
Dec-07 Enrollment	339,257	321,239	17,671	246	58	229,098	110,159
Nov-09 Enrollment	436,409	377,615	41,375	14,493	2,906	287,859	148,550
Total Change in Enrollment	97,152	56,376	23,704	14,247	2,848	58,761	38,391
Estimated Number of New Enrollees with Private Insurance at the Time of Enrollment	25,120	12,875	9,186	5,106	1,092	16,470	9,464
Estimated Change in Enrollment that Came from the Uninsured	72,032	43,501	14,518	9,141	1,756	42,291	28,927
<b>Take-Up Rates – Children</b>							
	All	< 150	150-200	200-300	300+	Urban	Rural
Total Change in Enrollment / Population	7%	15%	22%	5%	0%	5%	11%
Change in Enrollment from Uninsured / Estimated Size of Uninsured Population	88%	107%	140%	54%	13%	63%	193%

Note on Tables: To the extent that the CPS estimate undercounts the number of uninsured children in Wisconsin, the ratio of change in enrollment to the number of uninsured will overstate the take-up rate. Additionally, the high rate of take-up may be an artifact of the likely increase in uninsured from since the 2008/2009 CPS, as an increase in the uninsured would increase the pool of income-eligible uninsured children. The ratio is also affected by differences in income-reporting within CPS and BadgerCare Plus. It is possible that an increase in take-up may suggest migration from private insurance to public coverage. The figures reported here have been adjusted for such migration using estimates of crowd-out developed elsewhere in this research project. See accompanying Report #3 on target efficiency and crowd-out.

**Table 3. Take-Up Rates, Parents/ Caretaker Adults**

Parents/Caretakers						
Estimated Size of the Population (2008/2009 CPS)						
	All	<150	150-200	200+	Urban	Rural
Population	1,377,749	240,205	92,008	1,045,535	1,038,609	339,140
Uninsured	123,458	62,052	18,501	42,906	92,933	30,525
Increase in Enrollment – Parents/Caretakers						
	All	<150	150-200	200+	Urban	Rural
Dec-07	176,685	166,880	9,625	157	115,636	61,049
Nov-09	257,068	226,009	27,307	3,750	165,665	91,403
Total Change	80,383	59,129	17,682	3,593	50,029	30,354
Estimated Number of New Enrollees with Private Insurance at the Time of Enrollment	20,305	13,898	5,654	1,723	13,492	7,367
Estimated Change in Enrollment that Came from the Uninsured	60,078	45,231	12,028	1,870	36,537	22,987
Take-Up Rates – Parents/Caretakers						
	All	<150	150-200	200+	Urban	Rural
Total Change in Enrollment / Population	6%	25%	19%	0%	5%	9%
Change in Enrollment from Uninsured / Estimated Size of Uninsured Population	49%	73%	65%	4%	39%	75%

## B. Exit and Churning

*Note: The complete findings pertaining to exit are in press: Leininger LJ, Friedsam D, et al. Wisconsin's BadgerCare Plus Reform: Impact on Low-Income Families' Enrollment and Retention in Public Coverage. Health Services Research. Forthcoming 2011.*

*Purpose:* To estimate the effect of BadgerCare Plus program design features on the likelihood of disenrollment from and re-enrollment in public coverage.

### Summary

Data indicate a decrease in program exits after the implementation of BadgerCare Plus. These trends suggested a positive impact of program simplification on enrollees' ability to retain coverage. Expanded income eligibility limits were also intended to help enrollees retain coverage even while experiencing the income and employment fluctuations that are common in lower-income populations. Declines in overall churning are observed due to reductions in

program exits. Those that do exit the program continue to have high likelihood of re-entry within six-months.

### *Data, Methods, Results*

The study period is from January 2007 through November 2009. The analytic sample is comprised of 1,310,812 unique enrollment spells contributed by 985,092 unique individuals.

We examined unadjusted and regression-adjusted exit rates in the time periods pre- and post-reform. We estimate a Cox proportional hazards model that includes the vector of sociodemographic covariates available in the CARES data as well as monthly unemployment rates measured at the county level by the U.S. Bureau of Labor Statistics. To capture the changes in the BadgerCare Plus program, we include three time indicators in the Cox specification: one reflecting the pre-period (January 2007-December 2007), which serves as the reference group; one reflecting the transition period (January 2008-March 2008); and one reflecting the post-period (April 2008 - November 2009). We include only new enrollment spells in order to capture the full enrollment experience and avoid any bias arising from left censoring – potentially missing data from the inability to observe the beginning of a spell.

Figure A displays pre-period and post-period enrollment trends for children and adults. The number of children enrolled in the program increased 29% between December 2007 and November 2009, from 339,256 to 436,389; adult enrollment increased by 46%, from 176,674 to 257,066. Notably, over half (59%) of the increase in child enrollment came from the ranks of children living in families with incomes below 150% FPL, all of whom were income-eligible for public coverage prior to the reform.

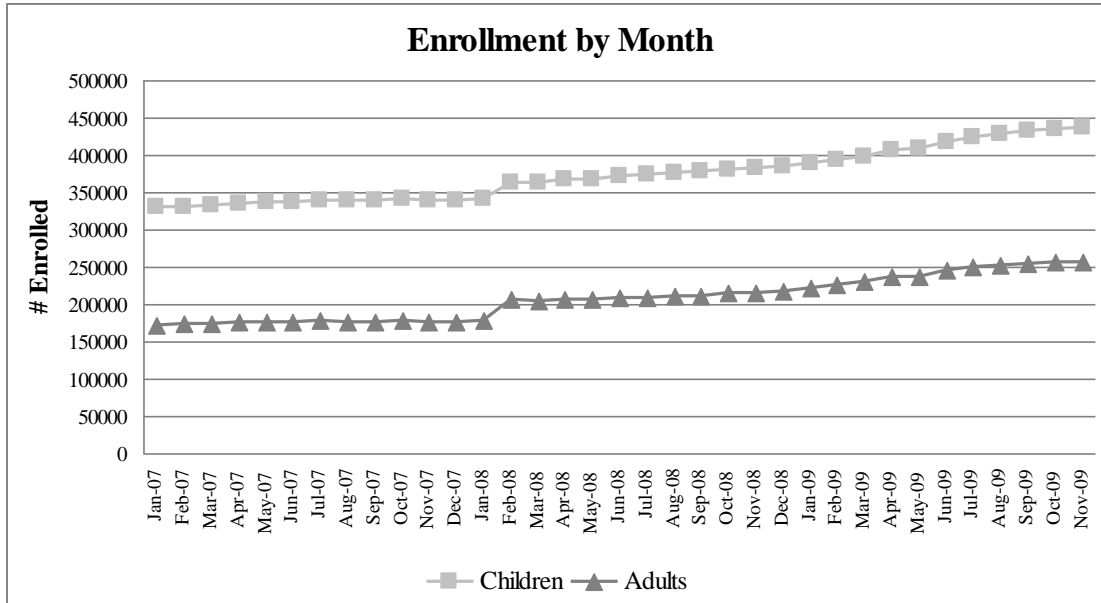
Children had lower exit rates over the study period than adults; an average of 2.6% of children exited each month compared with an average of 4.2% of adults. (Figure B) Both groups experienced similar trends in exits: exits rose slightly throughout 2007 (pre-BadgerCare Plus), continued to rise during program transition (sharply so for parents), and declined in a non-linear manner after April 2008. The average monthly unadjusted exit rate fell 22% for children and 15% for adults from the pre-period to the post-period.

The Cox regression results on the sample of 809,050 unique spells (contributed by 653,754 unique individuals) originating during the study period suggest that the hazard of disenrollment fell by 18% in the post-period (April 2008-November 2009) relative to the pre-period (January 2007-December 2007), net of the influences of socioeconomic covariates and county unemployment rates. The adjusted hazard of disenrollment during the transition period (January 2008-March 2008) was roughly 3% higher than in the pre-period. These percent differences are statistically significant at the 0.01 level.

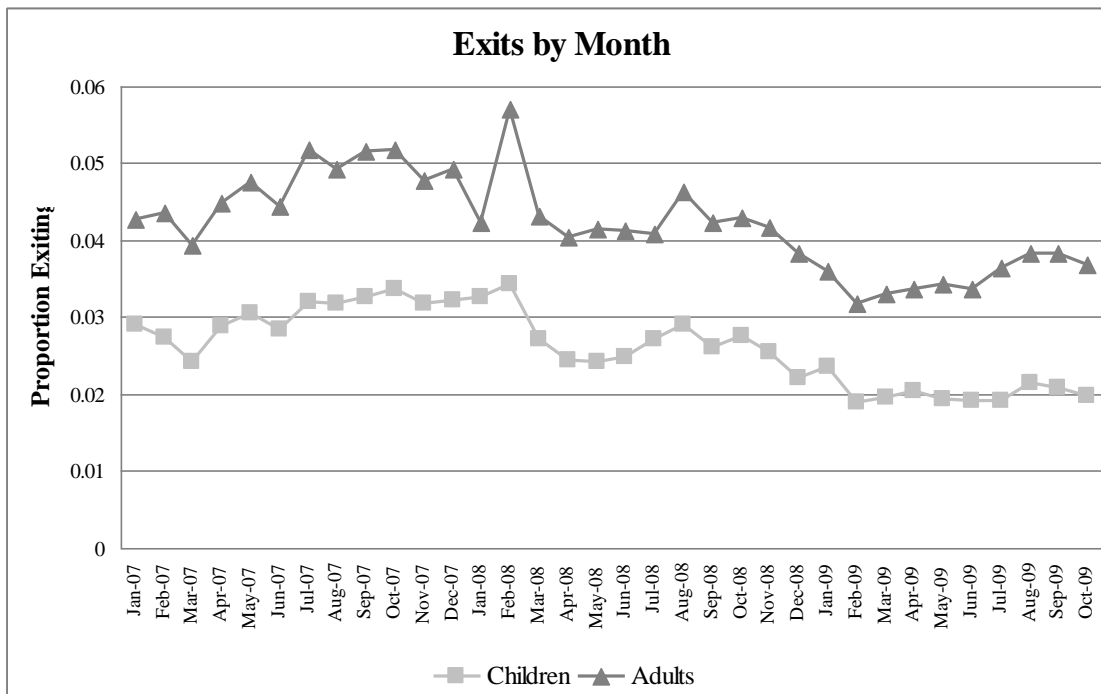
Members in different age and income strata were subject to a variety of different policy interventions, making it difficult to isolate the influence of any given intervention on exit rates. However, there is some heuristic evidence that administrative simplification efforts—net of the influences of crowd-out and premium provision changes—were associated with improved retention. Specifically, we estimate the Cox specification on a subsample of children who experienced no changes in crowd-out, eligibility, or premium provisions (children ages 1-17 with

family incomes < 100% FPL) and find that the decline in the hazard of disenrollment is of even larger magnitude than the estimate for the larger sample. Thus we can rule out that changes in the crowd-out and/or premium provisions were the sole drivers behind the decreases in disenrollment.

**Figure A: Enrollment Rates**



**Figure B: Exit Rates**



Note: Exit rates are unadjusted and defined as the number of current enrollees who exit divided by the number enrolled in a given month.



## Churning

BadgerCare Plus involves several design features intended to promote continuity of coverage and reduce the rate of churning among program enrollees. The program has various eligibility categories to accommodate the highly volatile employment, income and composition circumstances of some lower income households. In addition, administrative systems have simplified the re-certification and verification processes.

Churning – or the frequency exit and re-entry of program enrollees – can be viewed in two complementary ways:

- The overall churning rate reflects the percentage of all program enrollees that exit the program in a given month and will re-enter within six months.
- The conditional churning rate shows, among those who exit the program, what percent re-enter within six months.

Conditional churning rates show a moderate overall increase between May 2007 and May 2009. (Table 4 and Figure C) This trend may reflect two post-program circumstances: those that exit during the down economy of 2008-2009 have higher need to re-enroll, and they may find it administratively easier to re-enter the program as their circumstances change.

**Table 4.**  
**Conditional Churning: Percent of Those who Exit that Re-Enter within Six Months, Program Enrollees May 2007-May 2009**

<b>Children</b>	<b>All</b>	<b>≤150 FPL</b>	<b>150-200% FPL</b>
<b>May-07</b>	38.54%	39.85%	27.77%
<b>May-09</b>	44.56%	46.36%	42.97%
<b>% change</b>	<b>13.51%</b>	<b>14.04%</b>	<b>35.37%</b>
<b>Adults</b>	<b>All</b>	<b>≤150 FPL</b>	<b>150-200% FPL</b>
<b>May-07</b>	32.41%	33.72%	20.53%
<b>May-09</b>	36.32%	35.75%	40.66%
<b>% change</b>	<b>10.77%</b>	<b>5.68%</b>	<b>49.51%</b>

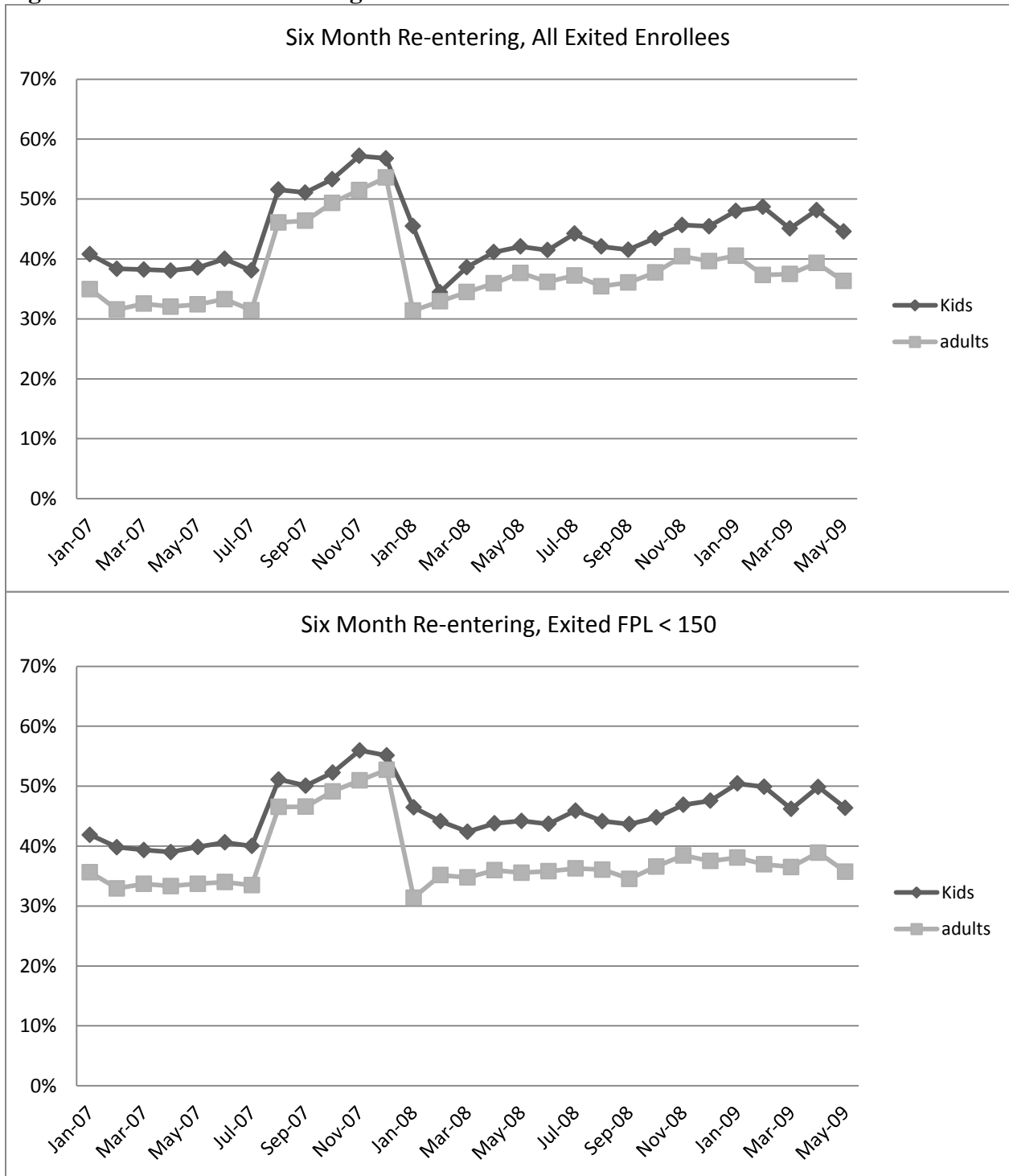
Overall churning rates, however, show a slow decline for all enrollees, for those with incomes ≤ 150, for children, and for adults. (Table 5 and Figure D) The overall rate shows a different trend than the conditional rate because the increases in conditional churning (persons re-entering after exiting the program) is offset by the 18% decline in overall program exits (Figure B).

The decline in program exits, as noted above, occurred apart from influences of socioeconomic covariates and county unemployment rates. In this regard, it appears that BadgerCare Plus design features have reduced overall churning by keeping people on the program (reducing exits) through volatile circumstances. Once members leave the program, however, their likelihood of re-entering the program remains high.

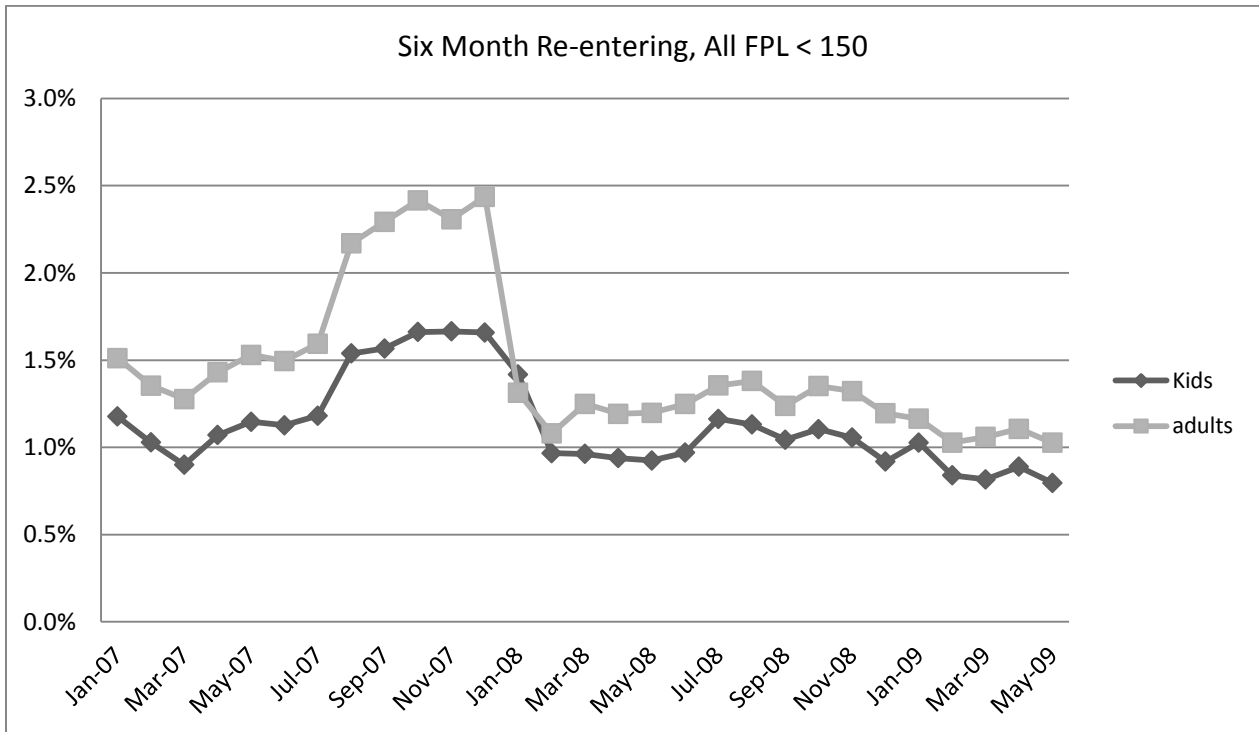
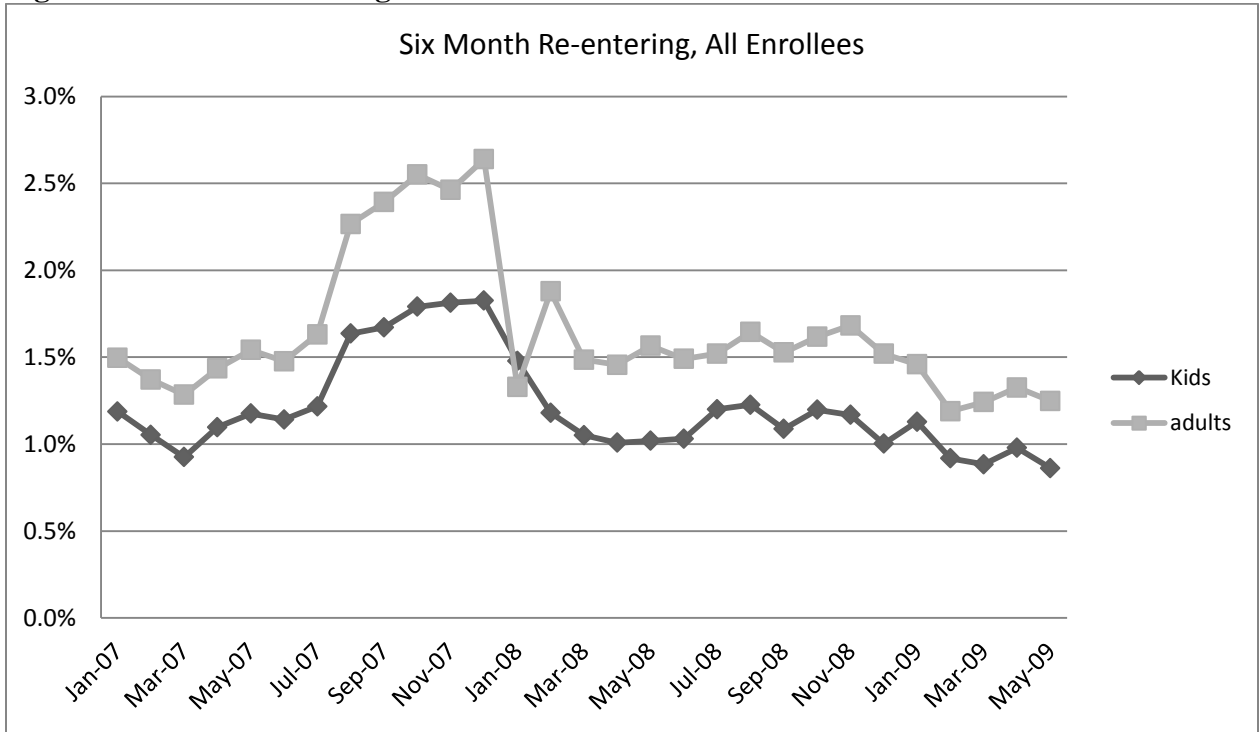
**Table 5.**  
**Overall Churning: Percent of Enrollees that Exit and Enter within Six Months**  
**Program Enrollees, May 2007-May 2009**

<b>Children</b>	<b>All</b>	<b>≤150 FPL</b>	<b>150-200% FPL</b>
<b>May-07</b>	1.18%	1.15%	1.75%
<b>May-09</b>	0.86%	0.80%	1.07%
<b>% change</b>	-37.21%	-43.75%	-63.55%
<b>Adults</b>	<b>All</b>	<b>≤150 FPL</b>	<b>150-200% FPL</b>
<b>May-07</b>	1.54%	1.53%	1.76%
<b>May-09</b>	1.25%	1.03%	3.13%
<b>% change</b>	-23.20%	-48.54%	43.77%

**Figure C: Conditional Churning**



**Figure D: Overall Churning**



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