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**The Effect of Cash and  
Counseling on Medicaid  
and Medicare Costs:  
Findings for Adults in  
Three States**

*Final Report*

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## EXECUTIVE SUMMARY

This study of the Cash and Counseling Demonstration program for adults in the three participating states—Arkansas, New Jersey, and Florida—examines how a new service delivery model of consumer direction affected Medicaid and Medicare service use and costs. The traditional system of providing Medicaid personal care services (PCS) through home care agencies gives consumers few choices about how and when their care is provided. Therefore, some consumers may not receive the type of care they feel they need, when and how they want it. As a result, some are dissatisfied with their care, have unmet needs, and are unhappy with the quality of their lives. The premise of the Cash and Counseling Demonstration was that, if consumers were given control over a cash allowance, they would select the types and amounts of care and services to best meet their needs and enhance their lives. When designed, the program was expected to cost no more per recipient per month of service than the traditional program.<sup>1</sup> Furthermore, if there were sizable improvements in quality of life and reduction in unmet needs, other Medicaid costs might be reduced. On the other hand, if the care provided were inadequate, such costs might increase.

Demonstration enrollment, which occurred between December 1998 and July 2002, was open to interested beneficiaries eligible for PCS under their state Medicaid plan (in Arkansas and New Jersey) or under a waiver (in Florida). After a baseline survey, enrollees were randomly assigned to direct their own personal assistance as Cash and Counseling consumers (the treatment group) or to receive services as usual from agencies (the control group). Cash and Counseling consumers had the opportunity to receive a monthly allowance, which they could use to hire their choice of caregivers or to buy other services or goods needed for daily living. To receive the allowance, consumers had to prepare a spending plan describing how they would use the allowance and have their counselor approve it. They also could call on counselors for support and advice on managing the allowance. Each state's program differed somewhat from the others in how it was implemented, the size of the allowance, and how the allowance could be used, but all three states kept the basic principle of providing an allowance with limited constraints and helping the consumer manage it.

We drew outcome measures from Medicaid and Medicare claims data for the first postenrollment year for the full sample (2,008 people in Arkansas, 1,730 in New Jersey, and 1,817 in Florida), and for the first two years postenrollment for a cohort of early enrollees. Of particular interest were the program's effects on expenditures for the services that the program "costed out" (that is, those services for which an allowance was provided instead) and on total expenditures for all Medicaid services. We used regression models to estimate program effects,

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<sup>1</sup> Cash and Counseling had to meet the Centers for Medicare & Medicaid Services' budget neutrality test for Medicaid Section 1115 demonstrations. This meant that costs per recipient per month for personal care and other core services should not exceed the per-person, per-month cost for those receiving agency services. The federal budget neutrality test examines program costs over an entire demonstration rather than for the early postenrollment years only. Therefore, the outcomes in this report do not indicate whether the consumer-directed programs in Arkansas, Florida, or New Jersey met this budget neutrality test.

while controlling for a comprehensive set of baseline characteristics. We constructed separate estimates for the elderly and nonelderly because of their potentially different needs, living situations, support networks, and types of disabilities, as well as for the first and second years postenrollment.

## Results

By the third month after enrolling in the demonstration, more than 80 percent of treatment group members in Arkansas had received allowances. In Florida and New Jersey, the processes for setting up spending plans and allowances were time-consuming, so most treatment group members did not start receiving their allowances until at least six months after enrollment. About a third of treatment group members in New Jersey and almost half of those in Florida (62 percent of the elderly and 42 percent of the nonelderly) never received an allowance, mainly because they decided they were satisfied with the traditional program.

In **Arkansas**, PCS expenditures were about twice as high for the treatment group as for the control group during the first year postenrollment, primarily because the control group received less care than it was authorized to receive. Nearly one-fourth of control group members did not receive any paid PCS. Those who did, as a group, received only 68 percent of the hours of care to which they were entitled, rather than the 86 percent they had historically received. The average total PCS expenditures among allowance recipients per month were slightly less than the costs that agencies would have incurred, on average, if they had been responsible for providing services to these consumers and supplied the historic proportion of baseline care plan hours.

Savings in Medicaid expenditures on nursing facility, home health, and other Medicaid services partly offset the larger PCS costs of the treatment group. Thus, during the first postenrollment year, the treatment group's total Medicaid costs were only about 15 percent (or \$1,531) higher than those of the control group (Table 1). Because the savings in other Medicaid services (particularly nursing facility, home health, and other home care waiver services) grew between the first and second year, and the gap in PCS costs shrank somewhat, the difference in total Medicaid costs during the second year fell to \$500 (five percent of the control group mean), but this was a statistically insignificant amount. The fact that treatment group members had 40 percent fewer nursing facility stays than control group members was especially noteworthy. Results were similar for the elderly and nonelderly, although both the treatment-control difference in PCS expenditures and the savings in non-PCS expenditures were larger for the nonelderly.

In **New Jersey**, PCS costs for the treatment group were 16 percent higher than for the control group during the first year, and this difference grew over time. The treatment-control difference in PCS costs was due largely to the fact that the treatment group was more likely to receive at least some PCS. For the nonelderly, however, costs per month for recipients also were higher for the treatment group. This appeared to be because nonelderly control group recipients received only about 90 percent of their baseline care plan amount, and no discount factor was applied to the baseline care plan in setting the allowance amount for treatment group members. Thus, the gap in personal care costs is larger for the nonelderly.

TABLE 1  
EFFECT OF ARKANSAS'S CASH AND COUNSELING ON PERSONAL CARE  
AND MEDICAID EXPENDITURES

	Personal Care Expenditures (Dollars)			All Medicaid Expenditures (Dollars)		
	Treatment	Control	Difference	Treatment	Control	Difference
Year 1						
Nonelderly	5,435	2,430	3,005***	14,125	12,862	1,263
Elderly	4,313	2,292	2,021***	11,523	9,822	1,701***
All Ages	4,605	2,349	2,256***	12,219	10,688	1,531***
Year 2						
All Ages	3,852	1,839	2,014***	11,082	10,582	500

Note: Year 2 includes only those who enrolled in the demonstration before May 1, 2000.

\*\*\*Treatment group mean different from control group mean at .01 level.

Savings in other Medicaid services (transportation, home health, and nursing facility) offset about half the treatment group's higher PCS costs in the first year, yielding a small (statistically insignificant) treatment-control difference in total Medicaid costs (about \$861, or four percent of total Medicaid costs for the full sample) (Table 2). These expenditure results were similar for the elderly and nonelderly. The difference in total Medicaid costs grew to \$2,379 in year 2, because the treatment-control difference in PCS expenditures grew by more than 60 percent, and the estimated savings in other Medicaid services essentially disappeared.

TABLE 2  
EFFECT OF NEW JERSEY'S CASH AND COUNSELING ON PERSONAL CARE  
AND MEDICAID EXPENDITURES

	Personal Care Expenditures (Dollars)			All Medicaid Expenditures (Dollars)		
	Treatment	Control	Difference	Treatment	Control	Difference
Year 1						
Nonelderly	11,166	9,220	1,946***	26,863	26,049	814
Elderly	11,891	10,650	1,241***	20,236	19,407	828
All Ages	11,557	9,970	1,587***	23,370	22,509	861
Year 2						
All Ages	11,337	8,792	2,545***	22,033	19,653	2,379***

Note: Year 2 includes only those who enrolled in the demonstration before January 1, 2002.

\*\*\*Treatment group mean different from control group mean at .01 level.

In **Florida**, waiver costs were \$2,108 (or 15 percent) higher for the treatment group than for the control group (Table 3). This difference was driven by the nonelderly, where the treatment-control difference in costs for waiver services was \$3,696. In contrast, the treatment-control difference for these costs was only \$433 (and statistically insignificant) for the elderly. Nonelderly allowance recipients incurred costs that were substantially greater than expected according to their baseline care plans. These high allowance costs appear to stem from the fact that many recipients, when they developed their spending plans, were assessed to need more care. Because there were no offsetting savings in other Medicaid costs, there was a sizable treatment-control difference in total Medicaid costs for the nonelderly and for the full sample. In year 2, the program’s effects on Medicaid expenditures were similar to those in year 1. Finally, while the program had no effect on service receipt of waiver services in year 1, it did significantly affect it in year 2 for the elderly, as somewhat more treatment group members (81 percent) than control group members (76 percent) received waiver services.

TABLE 3  
EFFECT OF FLORIDA’S CASH AND COUNSELING ON WAIVER  
AND MEDICAID EXPENDITURES

	Waiver Expenditures (Dollars)			All Medicaid Expenditures (Dollars)		
	Treatment	Control	Difference	Treatment	Control	Difference
Year 1						
Nonelderly	22,017	18,321	3,696***	27,433	24,106	3,327***
Elderly	10,496	10,063	433	15,971	15,833	137
All Ages	16,301	14,193	2,108***	23,745	19,973	1,772***
Year 2						
All Ages	18,354	15,978	2,375***	24,394	21,676	2,718***

Note: Year 2 includes only those who enrolled in the demonstration before October 1, 2001.

\*\*\*Treatment group mean different from control group mean at .01 level.

In all three states, the treatment group’s use and cost of Medicare services was similar to that of the control group. Therefore, the program’s effects on combined Medicare and Medicaid service use and costs are similar to the effects on Medicaid use and costs.

## Lessons

**A key benefit of the program—increasing access to paid care—may lead to increased costs.** Arkansas wanted its program to increase access to paid care. Florida and New Jersey, however, restricted their programs to consumers who already were receiving services (Florida) or who had been assessed and authorized to receive personal care by an agency (New Jersey). As a result, the program’s impact on whether beneficiaries received paid care was limited to the second year in Florida, but it was sizable in New Jersey and particularly striking in Arkansas.



Apparently, Cash and Counseling increased beneficiaries' access to paid care because, even though there was a labor shortage, they could hire family and friends. This, in turn, resulted in higher personal care costs for the treatment group.

If agencies cannot provide the hours authorized in the care plan, costs per month of services/benefits received may be higher than they would be otherwise. In Arkansas and New Jersey, costs per month of benefits were higher for treatment group recipients than for control group recipients, mainly because the control group received less care than they were expected to, at least partly due to severe labor shortages during the study period. The treatment group in these states received allowances approximately equal to the expected cost of obtaining authorized services in the care plan. In Florida, the primary reason for the treatment group's higher costs per recipient month among the nonelderly was that allowance recipients were more likely than those in the traditional program to be reassessed as needing more care than was in their original care plan.

**Cash and Counseling can reduce the need for other Medicaid services, but it did not do so consistently across states and time periods.** In Arkansas, savings in nursing facility and other long-term care services were enough to offset about 20 percent of the treatment group's higher personal care costs during the first postenrollment year and 75 percent of these costs during the second postenrollment year. Likewise, in New Jersey, savings in nursing facility and home health services were enough to offset about half the treatment-control difference in personal care costs in the first postenrollment year; however, these savings did not persist in the second postenrollment year.

## **Policy Implications**

In all three states, the program had large, overwhelmingly positive effects on the well-being of consumers and caregivers. In addition, in two of the states, costs for the treatment group did not exceed the costs the state would have incurred for delivering the approved baseline care plan services. In all three states, Cash and Counseling increased the likelihood that beneficiaries would receive paid services, greatly increased consumers' satisfaction with their care and their quality of life, and reduced their unmet needs (Carlson et al. 2005). It also reduced caregiver stress in all three states (Foster et al. 2005c). However, the higher initial costs of consumer direction under Cash and Counseling might discourage some states from adopting a similar program. Most states are having difficulty controlling their Medicaid budgets, so the effects of any new program on states' costs is likely to be an important factor in whether states adopt such programs. An important fact for states to consider is that this evaluation was conducted over a two-year follow-up period that started immediately after enrollment began. Since the evaluation, states have identified the sources of the higher costs for this innovative program and have implemented procedures to reduce these costs.

One approach to limiting cost increases might be to try to minimize enrollment in the program, but this could be counterproductive. The major source of higher costs in two of the states was attributable to the increased proportion of consumers receiving any services. If this increase is due in part to some consumers enrolling in the demonstration who otherwise would never have sought care under the traditional program, states might try to control these costs by

limiting enrollment in consumer-directed care to consumers who were already receiving services under the traditional program. However, this would defeat the purpose of expanding access to paid care in rural areas or other areas where agencies cannot find enough workers. Even in cities, a tight labor market may make it difficult for agencies to hire enough workers at wage rates compatible with the Medicaid payment for such services. Furthermore, some consumers may not be willing to accept agency services because of problems encountered in the past with agency workers (such as unreliability, theft, or abuse). Thus, limiting enrollment to those who had already been receiving agency services would unfairly penalize some eligible consumers and undermine a primary objective some states have for introducing consumer direction: improving access to care. The finding that the largest reductions in Medicaid nursing home and other long-term care costs were in states and age groups that had the largest increases in access to care validates the wisdom of this objective.

Based on the experience of the three demonstration states, other states interested in reaping the benefits of Cash and Counseling but concerned about program costs should consider the following issues:

**Recoupment.** States considering consumer-directed care may wish to adopt procedures to recover funds the consumer does not need. (This might happen, for example, if a consumer were hospitalized, had disenrolled, or had saved money not designated for a particular purchase). Each of the demonstration states eventually adopted such procedures, which can be implemented fairly if counselors give consumers adequate warning to help them avoid losing funds they may be saving for a legitimate purpose.

**Reassessments.** Cash and Counseling programs need to ensure that care plan amounts are no more likely to be increased if consumers receive an allowance than if they participate in the traditional program. Independent parties, rather than counselors or other people who might be inclined to advocate for consumers, might be used to conduct reassessments. Ideally, states would adopt standardized assessment procedures that are blind to whether consumers direct their own care and would develop comprehensive training for those conducting assessments and reassessments. Florida is implementing such changes.

**Savings on Counseling and Fiscal Services.** Arkansas learned a valuable lesson in how to provide counseling and fiscal services in a more cost-effective manner to more accurately reflect the level of effort that providing these services required. When the demonstration began, Arkansas paid the counseling/fiscal agencies a high monthly payment (\$115 per month) starting when a consumer enrolled in the program, even though the consumer was not yet receiving an allowance or using bookkeeping or counseling services regularly. The state changed its procedure, making a one-time payment after the spending plan was developed, then paying a monthly fee of \$75 after the consumer started the allowance. Arkansas found that this gave the counseling/fiscal agent an incentive to help the consumer complete the spending plan and reduced the state's costs for fiscal agent and counseling services.

**Allowance Discount Factor.** States should consider adjusting the allowance (reducing it by multiplying the care plan value by a "discount" factor) to ensure that it is on par with the costs of services that consumers would be likely to receive, on average, from an agency (since agency care recipients do not always receive the full value of services in their care plans). States also

should monitor the discount factor closely and possibly change it. In retrospect, treatment group costs for the nonelderly in New Jersey would have been much closer to control group costs if the state had discounted the allowance as Arkansas and Florida did, because control group members in New Jersey received only about 90 percent of the care they were authorized to receive. Even Arkansas's discount factor of 86 percent was not as low as the 68 percent ratio that control group members actually experienced during the study period.

Before setting or changing the discount factor, however, states should investigate *why* beneficiaries in the traditional program do not receive the services they need. Few policymakers would want to hold costs down by depriving beneficiaries of services that assessment staff authorize as necessary. On the other hand, if care plans are routinely set at overly generous amounts, or if there are other reasons that consumers do not get all the services authorized, discounting the allowance based on historical data is appropriate.

Even here, however, discounting allowances downward for all consumers to reflect the average penalizes those who truly need all services authorized in their care plan. Nonetheless, Arkansas and Florida consumers were much more satisfied under Cash and Counseling, despite the discounting of their allowance. Whatever cost-cutting measures are introduced, policymakers need to monitor whether such measures reduce the quality of care received. Furthermore, states should weigh the potential for reducing nursing facility costs against the higher costs they may incur for personal care. If the effects on nursing home and long-term care costs, such as those observed in Arkansas and New Jersey, can be replicated elsewhere (and perhaps increased), while keeping cost per month of service close to the levels of the traditional program, consumers, their families, and the state will all benefit.

### **Assessing the Trade-Offs**

Only states can decide whether they are willing to risk incurring slightly higher total Medicaid costs to reap Cash and Counseling's sizable gains in consumer and caregiver well-being. If states draw on the experiences of the three demonstration states, they should be able to find ways to keep total Medicaid costs at the level incurred under the traditional system. Modest percentages (about 8 to 20 percent) of eligible consumers participated in Cash and Counseling (even though the states undertook considerable outreach efforts to increase enrollment). Therefore, the total impact on Medicaid costs is likely to be modest, even if no changes were implemented to control personal care costs under Cash and Counseling.



## INTRODUCTION

Home care agencies traditionally have provided Medicaid personal care services (PCS). These services typically include help with activities of daily living, such as bathing and dressing, and instrumental activities of daily living, such as doing housework and laundry and preparing meals. Agency care provides consumers with important benefits (such as formally trained and supervised workers), but it sometimes limits consumers' choices about how and when their care is provided. As a result, many states are addressing the shortcomings of agency services by offering interested Medicaid beneficiaries and their families an alternative—consumer-directed care—which allows consumers to control the funds for their care and to obtain services directly from individual providers (Velgouse and Dize 2000). The Cash and Counseling model of consumer-directed home care is designed to improve the well-being of these families without increasing public costs per month of service.<sup>1</sup>

Under the aegis of federal Systems Change grants and other initiatives spurred by the Supreme Court's 1999 *Olmstead* decision and the Bush administration's subsequent New Freedom Initiative, many states are considering consumer-directed options. States seeking to improve home- and community-based services (HCBS) for Medicaid beneficiaries need to know the costs of such programs to determine whether they are feasible. The national Cash and Counseling Demonstration, conducted in Arkansas, Florida, and New Jersey, was designed to provide the information states need to make informed choices. It used a randomized design to

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<sup>1</sup> For more than 20 years, states have developed programs that incorporate varying degrees of self-direction and self-determination. Two national pilot projects are testing these approaches: (1) the Self-Determination project in 19 states, focusing on HCBS Section 1915(c) waivers; and (2) the Cash and Counseling National Demonstration and Evaluation Program in 3 states, focusing on the Section 1115 Demonstrations. Based on the early lessons learned from state programs and these national demonstrations, CMS developed the *Independence Plus* Initiative in 2002. *Independence Plus* programs may be operated under Section 1115 demonstration authority or Section 1915(c) waiver authority.

perform the first rigorous comparison of Medicaid and Medicare costs (under agency- and consumer-directed approaches).

Cash and Counseling could affect public costs in several ways. Costs could increase if, under consumer direction, Medicaid beneficiaries are more likely to actually receive the authorized paid care for which they are eligible. Cash and Counseling's costs could be higher (or lower) than those of the traditional program if the monthly allowance a state sets for self-directing consumers is higher (or lower) than the amount it would traditionally pay for authorized services. Finally, reimbursements for other services could increase (or decrease) if changes in how consumers manage their allowance under consumer direction lead to changes in their need for hospital, home health care, nursing, and other Medicaid and Medicare services.

Recent research suggests that Florida's Cash and Counseling model—Consumer Directed Care (CDC)—increased the well-being of children with disabilities and their parents in Florida and that the Cash and Counseling programs in Arkansas, Florida, and New Jersey similarly increased the well-being of adults (Foster et al. 2004, Carlson et al. 2005). The program also increased the likelihood that consumers in all three states would receive paid PCS (Carlson et al. 2005; Foster et al. 2004). However, the results to date on costs are less clear-cut. Arkansas's Cash and Counseling program increased personal care costs for adults, but, because of savings on other Medicaid services, the higher costs were partially offset during the first postenrollment year and almost fully offset during the second (Dale et al. 2004a). Florida's program for children increased Section 1915(c) waiver costs, although savings on home health services partly offset the higher costs (Dale et al. 2004b). This report compares results from all three demonstration

programs to examine how consumer direction for adults affects Medicaid and Medicare service use and costs.<sup>2</sup>

## **A NEW MODEL OF MEDICAID PERSONAL ASSISTANCE**

Many people receive disability-related supportive services in their homes through state Medicaid plans or HCBS waiver programs. In 2001, about 1.4 million people did so (Harrington and Kitchener 2003). Most people receive such services from government-regulated agencies, whose professional staff select and schedule the services and monitor their quality.

Cash and Counseling, as one model of consumer-directed supportive services, provides a flexible monthly allowance to Medicaid beneficiaries who volunteer for the program and are randomly assigned to the evaluation's treatment group. They can use this allowance to hire their choice of workers, including family members, and to purchase other services and goods (as states permit). Cash and Counseling requires that consumers develop plans showing how they would use the allowance to meet their personal care needs, and it provides counseling and fiscal assistance to help them develop these plans and then manage their responsibilities. Consumers who cannot manage their care themselves, or who prefer not to, may designate a representative, such as a family member, to help them or do it for them. These features make Cash and Counseling adaptable to consumers of all ages and ability levels.

With funding from the Robert Wood Johnson Foundation and the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, the Cash and Counseling Demonstration and Evaluation was implemented in three states: Arkansas (IndependentChoices), Florida (CDC), and New Jersey (Personal Preference Program). The

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<sup>2</sup> For information on the costs of Cash and Counseling on developmentally disabled children in Florida, see Dale et al. 2004b. This report repeats the results for Arkansas provided in Dale et al. 2004a.

National Program Office for the demonstration, at Boston College and the University of Maryland, coordinated the overall demonstration, provided technical assistance to the states, and oversaw the evaluation. Because their Medicaid programs and political environments differ considerably, these states were not required to implement a standardized intervention, although they did have to adhere to the basic Cash and Counseling tenets of flexibility in the use of the allowance and support (as described above) to make it possible for all consumers to participate. The three states' programs operated under the Section 1115 Medicaid authority, which allowed the participants to hire legally responsible relatives such as spouses and parents, receive a cash allowance, and combine populations not allowed under the Section 1915 (c) waiver authority.<sup>3</sup> Services offered under a Section 1115 demonstration can include state plan services, services in place of state plan services, and HCBS waiver services.

## **KEY FEATURES OF THE THREE DEMONSTRATION PROGRAMS**

As they began their demonstrations, Arkansas, Florida, and New Jersey all wanted to see whether the Cash and Counseling model was politically and economically feasible in their state environments. Arkansas stressed increasing access to care more than the other states did, because its home care workers were in unusually short supply, particularly in rural areas.

The programs of all three states shared key features, but they also differed in important ways. This section and Table C.1 summarize the main features of the three programs.

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<sup>3</sup> HCBS Section 1915(c) waivers permit states to offer Medicaid-eligible people alternatives to institutional care. These people can receive a broad array of services, including personal care and homemaker services not otherwise covered under a state's Medicaid program.



## **Eligible Population, Enrollment, and Allowance**

The Cash and Counseling program was offered to elderly and nonelderly adults with physical disabilities who were eligible for state plan PCS (in Arkansas) or assessed to receive such services (in New Jersey). In Florida, the program was offered to people receiving services under one of three Medicaid HCBS waiver programs covering elderly adults, nonelderly adults with physical disabilities, children and adults with developmental disabilities, and adults with brain/spinal cord injuries. In Florida, the array of “costed-out” services (services that an allowance was provided instead of) was broad. They included personal care and services such as transportation, behavioral therapy, and personal care supplies. In contrast, in Arkansas and New Jersey, personal care was the only costed-out service.

Another important distinction between the three state programs involved whether beneficiaries had to be enrolled in the traditional program to participate in Cash and Counseling. In Florida, to be eligible for the demonstration, beneficiaries had to already be receiving some costed-out waiver services. In New Jersey, beneficiaries had to have applied for agency PCS and been assessed as eligible to receive them. Only these people were invited to participate in the program.<sup>4</sup> Arkansas, however, allowed anyone eligible for Medicaid personal care to enroll and used a letter from the governor to inform all Medicaid beneficiaries in the state about this option.

None of the states screened eligible consumers for appropriateness. Rather, consumers were allowed to enroll if they (or their representatives) felt they could manage the Cash and Counseling program.<sup>5</sup>

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<sup>4</sup> This requirement limited the likelihood of consumers enrolling in the demonstration who would not have sought or accepted agency services but who were interested in receiving a flexible monthly allowance.

<sup>5</sup> The Section 1115 special terms and conditions had an express provision that people with cognitive disabilities could not deliberately be excluded from participation but should be given the support needed to self-direct.

In Arkansas and New Jersey, the monthly value of PCS in the beneficiary's care plan was used to determine the amount of the allowance. In Florida, the allowance was based on the actual Medicaid cost, according to Medicaid claims history, of all the goods and services (except for case management/support coordination) that the beneficiary was receiving under the HCBS waiver. If this history was not stable or not consistent with the current care plan, the care plan became the basis for the allowance. The allowance amounts in Arkansas and Florida were adjusted by a "discount factor" to ensure that treatment group members' allowances were in line with the expected costs of services that similar control group members were likely to actually receive. (Consumers in the traditional program often received somewhat less care than their plans recommended because of hospitalizations, workers sometimes failing to show up, and other problems.) Arkansas multiplied the number of hours in the care plan by a discount factor ranging from 70 to 91 percent to reflect the historical differences observed between the amount of services different agencies actually delivered and the amount the care plan authorized.<sup>6</sup> In Florida, the allowances were multiplied by a discount factor equal to 89 percent for the elderly, 83 percent for adults with physical disabilities and adults with brain/spinal cord injuries, and 92 percent for children and adults with developmental disabilities. New Jersey determined that consumers typically received the full value of their care plans, so it did not discount the care plan value in setting the allowance amount. The median monthly allowance varied widely across the three states, from \$313 in Arkansas to \$1,097 in New Jersey, with Florida falling between these two extremes (\$829).<sup>7</sup>

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<sup>6</sup> Arkansas developed provider-specific discount factors by comparing, for the previous year, the hours in the care plans of random samples of people served by providers of traditional personal assistance and the hours actually used (according to claims data).

<sup>7</sup> Florida's mean allowance (about \$1,200) was the highest of the three states.

In all three states, programs conducted reassessments periodically or when the participants' needs changed. Consequently, sample members' care plans (and allowance amounts) could change. In Arkansas, agencies reassessed control group members, and the program's counselors reassessed treatment group members. In New Jersey, agencies reassessed those in the traditional program, and Medicaid nurses reassessed those in Cash and Counseling. To authorize more than 25 hours of care, however, agencies had to seek approval from Medicaid. In Florida, support coordinators (for the nonelderly) and case managers (for the elderly) reviewed control group members' support plans and revised them as necessary to ensure that needs were met. Consultants had comparable responsibility for those receiving the allowance. Care plan amounts also changed in New Jersey because the rate per hour paid to agencies (and, therefore, the rate at which hours were costed out to determine the allowance) increased by about seven percent over the study period.

In spite of the name of the program, consumers did not actually receive much of the allowance in cash. Rather, consumers (or their representatives) had to develop a spending plan specifying the goods and services to be purchased for them with the allowance. The allowance could only be used to purchase goods and services related to the consumer's disability. However, the states usually took a broad view of what purchases to allow (for example, they permitted the purchase of microwave ovens and washing machines if they increased the person's independence). In general, invoices had to be submitted for checks to be written; consumers were not given accounts that they could write checks against, as with a private bank account. Spending plans could include small amounts of cash—up to 10 percent of the allowance in

Arkansas and New Jersey and up to 20 percent in Florida—to be paid to the consumer for incidental expenses (such as taxi fare) for which invoicing was impractical.<sup>8</sup>

Under some circumstances, the states in all three Cash and Counseling programs recouped funds from consumer accounts maintained by the fiscal agent. This was necessary to recover inappropriate payments (for example, payment of an allowance after the consumer had disenrolled from the program or had undergone a lengthy hospitalization) and to recover large balances that consumers had accumulated but were not saving for a particular purpose. All three states permitted recoupment when the advancement of funds had been inappropriate, but the recoupment procedure differed in the three programs. Partway through the demonstration, Arkansas began recouping funds from consumers who had balances of more than 150 percent of their monthly allowance and who had not specified a purchase for which they were saving. New Jersey recouped funds that remained unused after a 12-month period when a consumer's spending plan did not designate a purpose for those funds. After the demonstration ended, Florida began retroactively recouping funds from consumers who had disenrolled and began enacting policies that would allow it to recoup undesignated funds that exceeded 1.5 times the monthly allowance.

Consumers were allowed to hire relatives. A waiver of federal regulations permitted the hiring of “legally responsible” relatives (those who were responsible for the consumer's well-being, including spouses, parents of minors, and legal guardians). Florida and New Jersey exercised this waiver; Arkansas did not. (Arkansas did allow consumers to hire relatives, such as

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<sup>8</sup> Participants in Arkansas had discretionary use of 10 percent of the cash allowance up to \$75; the participant had to declare the uses of the discretionary income. Florida changed its initial cap for discretionary income from 20 percent of the monthly allowance to \$250 of the monthly allowance (which equaled about 20 percent of the average monthly allowance). Participants may request additional discretionary funds, but the state must approve them.

the parents of adults, who were not legally responsible for those consumers. Consumers who hired workers became the employer of record for those workers. To avoid a conflict of interest, Arkansas and New Jersey did not allow the same person to serve as both representative and worker.

### **Counseling and Fiscal Services**

In all three Cash and Counseling programs, consumers were offered the assistance of counselors (called “consultants” in Florida and New Jersey) and of a fiscal agent. Counselors interacted with consumers to (1) review initial and revised spending plans and ensure that they included only permissible goods and services, (2) help with employer functions, (3) monitor consumers’ health, and (4) monitor the uses of the allowance (in Florida and New Jersey). Florida and New Jersey required that state- or district-level staff review *all* spending plans. Arkansas required state-level review only if a plan contained an item not on a preapproved list. Counselors in all three programs advised consumers about recruiting, hiring, training, supervising, and (if necessary) firing workers. Counselors were required to telephone and visit consumers periodically to monitor their condition and their use of the allowance. The frequency of required calls and visits varied across programs, but counselors provided additional monitoring and problem-solving calls and visits as needed.

Consumers in all three programs were offered help with fiscal tasks, including the payroll functions of an employer (such as preparing and submitting payroll tax returns) and writing checks. A consumer who demonstrated the ability to assume responsibility for these fiscal tasks was allowed to do so. In both Arkansas and Florida, a few treatment group members (less than one percent) assumed responsibility for all fiscal tasks, and none did so in New Jersey.

To prevent abuse of the allowance, all three programs verified worker time sheets and check requests against spending plans before disbursing funds. In Florida and New Jersey, the fiscal

staff was responsible for this verification; in Arkansas, a counselor was responsible for it. Counselors in Arkansas and Florida also checked receipts for expenditures under the allowance. (New Jersey did not require consumers to keep receipts.) Arkansas required receipts for everything except incidental expenses. Florida required that counselors review receipts for incidental expenses, and the fiscal agent reviewed receipts for all purchases made by the few consumers who assumed responsibility for fiscal tasks themselves.

The three states paid in different ways for consulting and fiscal agent services. In Arkansas, the state expected that the fiscal agent and counseling costs would be covered, in aggregate, by the difference between the standard rate of \$12.36 per hour of personal care that the state paid agencies and the \$8.00 per hour in the cash allowance. In New Jersey, 10 percent of the value of the consumer's care plan was set aside to cover counseling costs and some fiscal agent costs (such as for processing the papers in an employment packet). In addition, consumers were charged fees for services they asked the fiscal agent to perform, such as cutting or stopping payment on checks and arranging for criminal background investigations. In Florida, for those with developmental disabilities, the same monthly fee (\$148 per month) that was paid to support coordinators in the traditional program was paid to counselors under CDC. For elderly consumers, Florida paid counselors a separate fixed amount to develop the spending plan (with the number of such visits capped for each consumer) and followed with hourly rates for counseling services (with quarterly payments capped for each consumer). For fiscal services, Florida developed a schedule for consumer fees (for example, \$5 per check cut), with the total capped at \$25 per consumer per month.

## **EXPECTED EFFECTS OF CASH AND COUNSELING ON MEDICAID AND MEDICARE SERVICE USE AND COSTS**

According to the budget neutrality requirements for this demonstration defined by the Centers for Medicare & Medicaid Services (CMS) for Medicaid Section 1115 demonstrations, the costs per recipient per month for personal care and other core services during the demonstration period should not exceed the per-person, per-month cost for control group members receiving agency services during the same period.<sup>9</sup> However, our analysis differs from CMS's budget neutrality analysis in that we examine the cost per sample member, as well as the cost per PCS recipient, over a limited time.<sup>10</sup>

We would expect that Cash and Counseling would increase Medicaid expenditures for the costed-out service to the extent that the program increased the percentage of sample members receiving any paid care. In addition, the program could affect costs in several other ways. First, the allowance could be too high (or too low) if the control group received fewer (or more) services than they had historically received. In Arkansas, for example, control group members received only 68 percent of the value of their care plan during the study period, rather than the 86 percent they had historically received (Dale et al. 2004a). Analyses reported later in this paper examine whether control group members in Florida and New Jersey experienced similar underservice.

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<sup>9</sup> Core services were designated before the demonstration and included services that would likely be affected by the costing out of PCS (or waiver services in Florida). These services included home health, targeted case management, hospice, durable medical equipment, and transportation (although the exact definition varied by state).

<sup>10</sup> The federal budget neutrality test examines program costs over the duration of a demonstration rather than for the early postenrollment years only. Therefore, the outcomes in this report do not indicate whether the consumer-directed programs in Arkansas, Florida, or New Jersey met CMS's budget neutrality test.

Second, differences in reassessment procedures for the treatment and control groups could lead to differences in the amount of care beneficiaries received (and, in turn, the costs of that care). For example, because of labor shortages, agencies in Arkansas and New Jersey might have been reluctant to increase the number of hours in consumers' care plans, even if changes in consumers' conditions or circumstances justified increases. In contrast, because treatment group members could hire friends and relatives, labor shortages were not a factor in the counselors' reassessments (in Arkansas) or the Medicaid nurses' reassessments (in New Jersey). In addition, in New Jersey, agencies could authorize up to 25 hours of care without a Medicaid nurse's approval. This meant that agencies might be reluctant to reassess control group patients as needing more than 25 hours of care, but no such constraint existed for Medicaid nurses reassessing treatment group members. In Florida, the same people conducted assessments for the treatment and control groups. People acting as consultants, however, might interpret the procedures and constraints for developing care plans differently for Cash and Counseling recipients from the way they would if they were acting as support coordinators or case managers for the traditional program.

Finally, if the costs for other services associated with consumer direction (such as costs for fiscal agents) are less than agency overhead, consumer-directed services may be cheaper. While Cash and Counseling has no agency overhead costs, the program does incur costs for fiscal agents and counseling. Nonetheless, the program could save money in Arkansas and New Jersey if the aggregate costs for fiscal agent and counseling services were less than the pool of money generated to cover those costs. In Florida, for both nonelderly adults with physical disabilities and with brain/spinal cord injuries and for the elderly, savings could be generated if the costs for consulting were less than those of case management under the traditional program. (There was no opportunity for savings on consulting for the nonelderly adults in Florida's Developmental



Disabilities program, because the cost for consulting under CDC was identical to that of case management under the traditional program.)

We also explore the reasons for any treatment-control difference in expenditures for the costed-out service. First, we assess whether the discount factor was consistent with actual experience during the demonstration. To do this, we compare the value of services the control group received with the value it was expected to receive (the discounted care plan value).<sup>11</sup> Second, in Arkansas, we examine whether different reassessment procedures for the treatment and control groups might have contributed to the treatment-control difference in personal care expenditures. Unfortunately, reassessment data were available only for the treatment group in New Jersey and for neither group in Florida. Therefore, in these two states, we can only make inferences about reassessments based on changes in personal care expenditures.

Cash and Counseling could affect the use of other services in addition to expenditures for the costed-out service. First, it might substitute for other Medicaid or Medicare services, such as nursing facility and home health services. Second, it might affect the use and cost of Medicaid and Medicare services, such as inpatient hospital admissions, that may reflect the adequacy of PCS. These costs could be higher for the treatment group if workers neglected consumers, performed health care tasks improperly, or waited too long to request medical attention for their clients. In such cases, consumers might fall more frequently than control group members, or they might develop more infections, bedsores, or contractures. According to self-reported data in Carlson et al. 2005, however, treatment group members in each of the three states were no more likely than control group members to fall, develop contractures, have respiratory infections,

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<sup>11</sup> The discount rate applied during the demonstration could have been inaccurate. The rate may have been based on the experiences of small samples of PCS recipients. It is also possible that the ratio of hours of services received to hours planned varied during the demonstration.

experience shortness of breath, or have urinary infections. In fact, that research showed that consumers were actually less likely to experience many of these events. Thus, if claims data are consistent with survey reports, we would expect the treatment group's expenditures for other Medicaid and Medicare services for these problems to be similar to (or even less than) the control group's.

## **DATA AND METHODS**

We drew data for this analysis primarily from Medicaid and Medicare claims, as well as from a computer-assisted telephone baseline survey administered to treatment and control group members or to their proxy respondents between December 1998 and April 2001. To construct outcome measures for the full sample, we used Medicaid and Medicare claims data for the first 12 months after enrollment. We also constructed outcome measures for a cohort of early enrollees for whom two full years of Medicaid and Medicare data were available. This cohort includes those who enrolled in Arkansas's IndependentChoices before May 2000, Florida's CDC before October 2001, or New Jersey's Personal Preference program before January 2002.

We constructed control variables from claims data for the year before enrollment and from the baseline survey. Control variables from the claims data included the sample members' preenrollment Medicaid and Medicare expenditures, as well as their diagnoses (in Arkansas) or predicted expenditures based on their diagnoses (in Florida and New Jersey).<sup>12</sup> Control variables

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<sup>12</sup> We used the Chronic Illness and Disability Payment System (CDPS) to classify people's diagnoses (according to their Medicaid and Medicare claims data) into major categories. A diagnosis is captured only if there is a Medicaid or Medicare claim related to it in the year before the demonstration. People could have chronic conditions (such as a psychiatric condition) that would not be captured in the claims data if they did not receive treatment for that condition in the preenrollment year. Many of the diagnostic categories are divided into subcategories (such as high cost, medium cost, and low cost) according to the level of Medicaid expenditures that would be expected for a particular diagnosis. In Arkansas, we used these categories as control variables. In Florida and New Jersey, we controlled for each person's level of predicted costs based on their CDPS categories. See Kronick et al. (2000) for a description of the CDPS.

from the baseline survey include the consumers' demographic characteristics, measures of health and functioning, and measures of unmet need for personal care.

## **Outcome Measures**

Medicaid expenditure measures were drawn from Medicaid claims data supplied by each state, and Medicare expenditure measures were drawn from Medicare claims data. To avoid introducing selection bias, we retained the full sample, including those not enrolled in Medicare, in our analysis. (We defined those not enrolled in Medicare as having zero Medicare expenditures. More than 90 percent of the elderly and about 40 percent of the nonelderly were enrolled in Medicare in each of the three states.) Most of the measures are straightforward. Two, however—expenditures for the costed-out service and personal care expenditures per recipient month—require additional explanation.

***Expenditures for the Costed-Out Service.*** In general, in all three states, expenditures for the costed-out service were obtained from the Medicaid claims data. For allowance recipients, these expenditures include the allowance costs, costs for counseling services, and costs for fiscal agent services incurred by Medicaid. For control group members and for treatment group members who received traditional services (because they had not yet started receiving the allowance or had disenrolled from the program), these expenditures include costs agencies incurred for delivering care and costs other vendors in the traditional program incurred. We provide state-by-state details next.

In Arkansas, personal care costs for the control group (and for treatment group members not receiving an allowance) were equal to the actual cost of the hours of care delivered according to the Medicaid claims data (which was equal to the number of hours multiplied by \$12.36, the hourly rate Arkansas paid for agency services). The treatment group's personal care expenditures included costs for the allowance and the costs for counseling and fiscal agent fees,

both of which were reported in the Medicaid claims data.<sup>13</sup> As noted, the allowance was equal to the number of care plan hours (adjusted to reflect historical differences between actual hours and care plan hours) multiplied by \$8 per hour.<sup>14</sup> The program paid a fixed monthly fee for each consumer's counseling and fiscal agent services.

For allowance recipients in New Jersey, personal care costs included the costs for the allowance, as well as the 10 percent of the value of the care plan that was set aside to cover fiscal agent and counseling costs. We adjusted the personal care costs from the claims data to reflect the funds that the state was recouping from consumers (but that had not yet been reflected in the claims data).<sup>15</sup> Personal care costs for those in the control group and for those in the treatment group not receiving an allowance were equal to the amount that agencies billed Medicaid for care provided.

In Florida, waiver costs for allowance recipients included the cost of the allowance plus the fees paid for consulting services. (Because the consumer paid most fiscal agent costs directly, these costs are not included in the claims data.) We adjusted waiver costs by the amount that Florida planned to recoup for consumers who disenrolled, by subtracting a prorated monthly recoupment amount (equal to the total recoupment amount divided by the number of months the

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<sup>13</sup> Medicaid personal care costs are slightly overstated in Arkansas because they do not reflect the \$600,000 of allowance payments that have been recouped from consumers during the study period. Individual recoupment amounts were not available at the time data for this report were analyzed. However, the average amount of money recouped per treatment group member was only \$150 per year. As noted in the results section, factoring in the amount recouped would reduce our estimate of the treatment-control difference in personal care expenditures only slightly.

<sup>14</sup> After the demonstration began, treatment group members could choose how many hours of care they would purchase with their allowance. They also were permitted to set their workers' wages, but those wages had to be at or above the state's minimum.

<sup>15</sup> New Jersey provided data on the total amount of money that was to be recouped from each consumer's account as of December 2003. We calculated a monthly adjustment by dividing each consumer's total recoupment amount by the number of months of allowance receipt, then subtracted this monthly adjustment from the consumer's monthly personal care costs (according to the Medicaid claims data) during each month that people received an allowance.

person received an allowance) from the consumer's waiver expenditures during each month the consumer received an allowance. Waiver costs for those in the control group and for those in the treatment group not receiving an allowance were equal to waiver expenditures that agencies or other vendors incurred according to the Medicaid claims data.

***Personal Care Expenditures per Recipient Month.*** For treatment group members, these included expenditures only for the months during which consumers received either a cash allowance or, for those not receiving the allowance, services from an agency (or other Medicaid vendor, in Florida). For control group members, it included only months during which the consumer received agency services (or, in Florida, waiver services from other Medicaid vendors).

### **Estimation of Program Effects**

Our impact estimates measure the effects of having the *opportunity* to receive the monthly allowance (because of being randomly assigned to the treatment group), rather than of actually *receiving* it. Treatment group members typically did not receive the allowance during the full postenrollment period that we examined. They may have disenrolled from Cash and Counseling, taken several months to submit their spending plans, or never submitted spending plans. Likewise, many control group members did not receive PCS in every postenrollment month. (Some did not receive any PCS during the postenrollment period.) In addition, some sample members died during the study period. First-year mortality rates for treatment and control group members were 14 and 12 percent, respectively, in Arkansas; 7 and 8 percent, respectively, in Florida; and 7 percent for both groups in New Jersey. To avoid introducing selection bias, most of our analyses were based on the Medicaid and Medicare expenditures of all treatment group and all control group members (including in the denominator even those who had died or who were no longer enrolled in Medicaid or Medicare). The exception was our examination of

expenditures per month of benefit receipt, which included only people who received PCS or waiver services.

We used ordinary least squares regression models to estimate program impacts for continuous outcome measures (including all our expenditure outcomes). For binary outcome measures (such as whether a sample member had any visits to the emergency room), we used logit models to estimate program impacts. For continuous outcome measures with a high proportion of zero values, such as the number of nursing facility days, we used tobit models. All the models controlled for the sample members' baseline measures of demographic characteristics, health and functioning, unmet needs for personal care, preenrollment Medicaid and Medicare expenditures, and preenrollment diagnoses. Tables A.1a through A.1c list the control variables used in each of the models. These models increased the precision of the impact estimates and ensured that any differences that may have arisen by chance between treatment and control groups in these preexisting characteristics did not distort our impact estimates. For many outcomes, we estimated models separately for elderly and nonelderly sample members, because impacts and the relationship between the outcomes and the control variables might differ for the two age groups.

To examine a longer follow-up period, we also estimated models on a subsample restricted to a cohort of early enrollees. To increase the cohort's sample size, it included both elderly enrollees and nonelderly enrollees. (In the appendix, Tables A.2a through A.2c show results for several key outcomes for the early enrollee cohort separately by age group.)

For continuous outcome measures, we measured impacts by calculating the treatment-control difference in predicted means. We measured the impacts of Cash and Counseling on binary outcomes by using the estimated coefficients from the logit models to calculate the average predicted probabilities that the binary dependent variable would take a value of 1, with

each sample member first assumed to be a treatment group member, then assumed to be a control group member. For each type of model, we used the p-values of the estimated coefficients on the treatment status variable to assess the statistical significance of the impacts; the p-values are reported in the tables. The impact estimates are almost always very similar to the simple treatment-control differences in means.

Table A.3 shows the statistical power to detect impacts of 10 percent of the control group mean for our key outcome measure, total Medicaid expenditures, assuming two-tailed tests at the .10 significance level. In each state, we have at least 80 percent power to detect a 10 percent change in total Medicaid expenditures for the full sample, the elderly sample, and the early enrollee sample. In Florida, we also have 80 percent power to detect a 10 percent impact for the nonelderly sample. This means that, for most of our samples, if the true effect of the program is to decrease (or increase) treatment group expenditures by 10 percent or more than they would have been without the program, the likelihood that the observed treatment-control difference in the sample will be statistically significant is at least 80 percent.

## **SAMPLE DESCRIPTION**

As would be expected under random assignment, there were few significant differences between treatment and control group members' baseline characteristics (Tables A.1a through A.1c). In all three states, most of the sample was female and white (Tables 1a through 1c). Many sample members reported that they were in poor health, and many had functional limitations. About two-thirds reported that they had to have assistance "transferring" (getting in and out of bed). While nearly 40 percent of sample members in Arkansas lived in rural areas (which could make it difficult for agencies and consumers to recruit workers), only 13 percent of Florida's sample members and 10 percent of New Jersey's did so. In keeping with New Jersey's program requirements, nearly all sample members in that state had received personal care in the

TABLE 1a  
BASELINE CHARACTERISTICS OF ARKANSAS SAMPLE MEMBERS

Characteristic	Nonelderly	Elderly	All
<b>Demographic Characteristics</b>			
Age in Years (Percent)			
18 to 39	27.5	0.0	7.6
40 to 64	72.5	0.0	20.1
65 to 79	0.0	50.4	36.5
80 or older	0.0	50.6	35.9
Female (Percent)	67.6	81.4	77.6
White (Percent)	63.5	59.2	60.4
Lived in Rural Area (Percent)	36.5	39.7	38.8
Months on Medicaid/Medicare in Preenrollment Year			
Months on Medicaid	11.9	11.2	11.4
Months on Medicare	5.0	11.5	9.7
Mean Monthly Medicaid Reimbursements for Selected Services in the 12 Months Preceding Baseline (Dollars)			
Medicaid PCS	2,330	2,167	2,212
Nursing facility services	144	149	147
Home health services	748	230	373
Health Status, Functional Status, and Need for Personal Care at Baseline (Percent)			
Said health was fair	26.7	32.6	31.0
Said health was poor	54.2	47.2	49.1
Needed help getting in and out of bed	62.1	67.4	65.9
Received personal care in preenrollment year	54.2	74.9	69.2
Had unmet personal care need	69.1	61.4	63.5
Monthly Prospective Allowance Amount (Dollars)	358	298	315
<b>Sample Size</b>	<b>556</b>	<b>1,452</b>	<b>2,008</b>

Source: Medicare and Medicaid claims, December 1997 to April 2000; Medicare and Medicaid enrollment files; and MPR's baseline evaluation survey, conducted between December 1998 and April 2001.

PCS = personal care services.



TABLE 1b  
 BASELINE CHARACTERISTICS OF NEW JERSEY SAMPLE MEMBERS

	Nonelderly	Elderly	All
<b>Demographic Characteristics</b>			
Age in Years (Percent)			
18 to 39	33.7	0.0	15.8
40 to 64	66.3	0.0	31.2
65 to 79	0.0	58.8	31.2
80 or older	0.0	41.2	21.8
Female	66.1	78.7	72.8
Race (Percent)			
Black	42.9	32.3	37.2
Nonblack	57.1	67.7	62.8
Hispanic	29.8	41.2	35.8
Lived in Rural Area (Percent)	9.5	10.6	10.1
Preenrollment Medicaid Expenditures for Selected Services in Year Before Baseline (Dollars)			
Total Medicaid	24,548	17,064	20,581
Inpatient expenditures	4,071	1,820	2,878
Home health	1,742	579	1,125
Personal care	7,774	8,949	8,397
Months on Medicaid/Medicare in Preenrollment Year			
Months on Medicaid	11.8	11.8	11.8
Months on Medicare	4.9	10.7	8.0
Managed Care at Baseline (Percent)			
In Medicaid or Medicare HMO	17.3	8.2	12.5
Health Status, Functional Status, and Need for Personal Care at Baseline (Percent)			
Said health was fair	31.0	41.5	36.6
Said health was poor	44.5	40.7	42.5
Health expected to be worse next year	39.4	53.5	46.9
Unmet need for personal care	74.3	73.8	74.0
Needed help getting in and out of bed	66.5	66.3	66.4
Received personal care in preenrollment year	96.8	97.8	97.3
Monthly Prospective Allowance Amount (Dollars)	1,087	1,072	1,079
<b>Sample Size</b>	<b>813</b>	<b>917</b>	<b>1,730</b>

Source: Medicaid and Medicare claims data and MPR's baseline survey.

HMO = health maintenance organization.

TABLE 1c  
 BASELINE CHARACTERISTICS OF FLORIDA SAMPLE MEMBERS

	Nonelderly	Elderly	All
<b>Age in Years (Percent)</b>			
18 to 39	75.5	0.0	37.9
40 to 59	24.5	0.0	12.3
60 to 79	0.0	52.9	26.3
80 or older	0.0	47.1	23.4
<b>Female (Percent)</b>	45.3	79.0	62.1
<b>Race (Percent)</b>			
Black	18.2	27.3	22.7
Nonblack	81.8	72.7	77.3
Hispanic	21.1	34.6	27.8
<b>Lived in Rural Area (Percent)</b>	14.5	10.6	12.6
<b>Medicaid Expenditures in Year Before Baseline (Dollars)</b>			
Total Medicaid expenditures	19,227	12,851	16,055
<b>Medicaid Annual Preenrollment Expenditures for Selected Services (Dollars)</b>			
Inpatient expenditures	576	766	671
Home health	1,104	159	634
Waiver services	13,494	8,273	10,897
<b>Months on Medicaid/Medicare in Preenrollment Year</b>			
Months on Medicaid	11.9	11.6	11.8
Months on Medicare	4.8	11.1	7.9
<b>Managed Care at Baseline (Percent)</b>			
In Medicaid HMO with capitated payment	23.5	6.3	15.0
In Medicaid primary care case management	45.8	9.1	27.5
In any Medicare HMO	5.0	24.1	14.5
<b>Health Status, Functional Status, and Need for Personal Care at Baseline (Percent)</b>			
Said health was fair	23.6	38.7	31.1
Said health was poor	15.4	37.3	26.3
Health expected to be worse next year	18.5	48.1	33.3
Unmet need for personal care	53.6	64.2	58.9
Needed help getting in and out of bed	51.8	65.2	58.4
Received personal care in preenrollment year	62.2	93.3	77.7
<b>Monthly Prospective Allowance Amount (Dollars)</b>	1,610	817	1,215
<b>Sample Size</b>	<b>913</b>	<b>904</b>	<b>1,817</b>

Source: Medicaid and Medicare claims data and MPR's baseline survey.

HMO = health maintenance organization.

year before enrollment, whereas in Arkansas only 69 percent had received it. While 100 percent of sample members in Florida had received waiver services in the year before enrollment (as Florida's program required), only 78 percent had received PCS, because some sample members had received only other (nonpersonal care) waiver services (such as therapy or supplies.) The allowance amounts consumers qualified for at enrollment differed substantially, averaging \$315 per month in Arkansas, \$1,079 in New Jersey, and \$1,215 in Florida. Thus, the amount consumers managed varied widely across states due to differences in services costed out in calculating the benefit, limits on these benefits, and labor rates. Amounts also varied widely across consumers within states. Finally, as would be expected under random assignment, there were few significant differences between treatment and control group members' baseline characteristics (Tables A.1a through A.1c).

The nonelderly sample in Florida was quite different from the comparable samples in Arkansas and New Jersey in many respects, because the primary feeder program (Florida's Developmental Disabilities waiver program, formerly known as the Developmental Services waiver) included people with developmental disabilities, as opposed to physical ones (although some had both). In fact, nearly 90 percent of the nonelderly were from the Developmental Disabilities waiver. The Florida nonelderly sample was more likely to be under age 40 and male and less likely to report being in fair or poor health. In Arkansas and New Jersey, the nonelderly group includes adults who were ages 18 to 64 at the time of enrollment, whereas in Florida it includes those who were ages 18 to 59. We have set the upper age limit for "nonelderly" differently for Florida because its Department of Elder Affairs waiver program covers consumers starting at age 60, rather than 65. Thus, dividing the sample into younger and older cohorts at age 60 instead of age 65 yields greater homogeneity within age groups in Florida and clearer interpretation of the results.

## RESULTS

### Allowance and Service Receipt in the Treatment Group

There were striking differences across states as to when treatment group members started receiving the cash allowance. By the third month after enrolling in the demonstration, more than 80 percent of treatment group members in Arkansas had received allowances. In contrast, there were delays in starting up the allowance in Florida and New Jersey, with only 16 percent in Florida and 32 percent in New Jersey receiving allowances by three months after enrollment. Even six months after enrollment, only 39 percent of treatment group members in Florida and 57 percent in New Jersey had started receiving an allowance. In New Jersey, about a third of treatment group members never received an allowance; in Florida, the fraction was almost half (58 percent of the elderly and 43 percent of the nonelderly; see Table C.2). In Florida, reasons for delays in starting the allowance included large staff workloads, procedural delays, and consumers having difficulty developing spending plans or finding workers (Foster et al. 2005a).<sup>16</sup> In New Jersey, delays were primarily due to the time-consuming procedures involved in developing a spending plan and switching from agency care to consumer direction (Foster et al. 2005b). In both Florida and New Jersey, consumers who never started an allowance typically had decided they were satisfied with the traditional program, had a problem with employer responsibilities (most commonly reported in New Jersey), thought the allowance was not enough, or thought the allowance rules were too restrictive.

Nonetheless, most treatment group members in all three states received traditional services in months that they did not receive allowances. The percentage receiving either an allowance or

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<sup>16</sup> Initially, consultants did not give consumers much help in developing their spending plans, believing that consumers who had difficulty developing the plans were not appropriate for the program. In 2002, however, Florida staff tried to provide more assistance, realizing that such consumers could manage program responsibilities after they developed the plans.

traditional services during the first postenrollment year was 97 percent in Arkansas, 96 percent in New Jersey, and 99 percent in Florida.

### **Program Effects on the Receipt of Any Paid Service**

In both Arkansas and New Jersey, Cash and Counseling had a significant impact on the likelihood that beneficiaries would receive *any* paid service (either an allowance or traditional services). In Arkansas, the treatment-control difference in the percentage receiving any paid services (25 percentage points for the full sample) is striking. Only 75 percent of elderly control group members and 63 percent of nonelderly ones received *any* PCS during the first postenrollment year, even though the state had authorized these services (Table 2a). In comparison, about 97 percent of elderly and nonelderly treatment group members received at least some services during this year. During year 2, the treatment-control difference in receipt of paid services was similar to that of year 1. However, during that year, a lower percentage of both treatment and control group members received PCS, mainly because some sample members died or entered nursing facilities.

In New Jersey, the impact of the program on service receipt was modest in year 1, with 96 percent of treatment group members receiving services, compared with 89 percent of control group members (Table 2b). By year 2, the program had a larger impact on receipt of services, with 84 percent of treatment group members receiving PCS, compared with only 71 percent of control group members. The program's impact on service receipt was particularly pronounced

TABLE 2a

## ESTIMATED EFFECT OF CASH AND COUNSELING ON RECEIPT AND COST OF PAID SERVICES IN ARKANSAS

	Cohort of Early Enrollees												
	Full Sample, Year 1			Year 2									
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value					
Percentage Receiving Any Service	97.8	63.2	34.6***	0.0001	98.4	60.9	37.6***	0.0001	84.0	48.2	35.9***	0.0001	
Expenditures for Personal Care	5,435	2,430	3,005***	0.0001	5,736	2,545	3,191***	0.0001	5,030	2,009	3,021***	0.0001	
<b>Sample Size</b>	<b>556</b>				<b>383</b>				<b>383</b>				
	<b>Nonelderly</b>												
Percentage Receiving Any Service	96.8	75.2	21.6***	0.0001	97.4	76.1	21.3***	0.0001	71.6	56.8	14.8***	0.0001	
Expenditures for Personal Care	4,313	2,292	2,021***	0.0001	4,524	2,307	2,216***	0.0001	3,396	1,734	1,661***	0.0001	
<b>Sample Size</b>	<b>1,452</b>				<b>929</b>				<b>929</b>				
	<b>All Ages</b>												
Percentage Receiving Any Service	97.1	71.9	25.2***	0.0001	97.7	71.7	26.0***	0.0001	75.2	54.3	20.9***	0.0001	
Expenditures for Personal Care	4,605	2,349	2,256***	0.0001	4,855	2,402	2,453***	0.0001	3,852	1,839	2,014***	0.0001	
<b>Sample Size</b>	<b>2,008</b>				<b>1,312</b>				<b>1,312</b>				

Source: Medicaid claims data.

Notes: Early enrollees enrolled in the demonstration before May 1, 2000. Expenditure means were predicted using ordinary least squares regression models. Treatment group members received services if they received agency care or an allowance; control group members received services if they received agency care.

\* Estimated effect significantly different from zero at .10 level.

\*\* Estimated effect significantly different from zero at .05 level.

\*\*\* Estimated effect significantly different from zero at .01 level.

TABLE 2b

## ESTIMATED EFFECT OF CASH AND COUNSELING ON RECEIPT AND COST OF PAID SERVICES IN NEW JERSEY

Variable	Cohort of Early Enrollees														
	Full Sample, Year 1					Year 1					Year 2				
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value			
<b>Nonelderly</b>															
Percentage Receiving Any Service Expenditures for Personal Care	95.8	87.6	8.2***	0.000	96.1	87.9	8.2***	0.000	85.2	67.6	17.7***	0.000			
	11,166	9,220	1,946***	0.000	11,086	9,123	1,964***	0.000	11,772	8,127	3,645***	0.000			
<b>Sample Size</b>	<b>813</b>				<b>671</b>				<b>671</b>						
<b>Elderly</b>															
Percentage Receiving Any Service Expenditures for Personal Care	97.0	89.7	7.2***	0.000	96.9	90.8	6.2***	0.000	83.2	74.0	9.2***	0.002			
	11,891	10,650	1,241***	0.000	11,689	10,825	864***	0.000	10,938	9,396	1,542**	0.025			
<b>Sample Size</b>	<b>917</b>				<b>776</b>				<b>776</b>						
<b>All Ages</b>															
Percentage Receiving Any Service Expenditures for Personal Care	96.4	88.7	7.7***	0.000	96.5	89.4	7.1***	0.000	84.1	71.0	13.1***	0.000			
	11,557	9,970	1,587***	0.000	11,412	10,031	1,381***	0.000	11,337	8,792	2,545***	0.000			
<b>Sample Size</b>	<b>1,730</b>				<b>1,447</b>				<b>1,447</b>						

Source: Medicaid claims data.

Notes: Early enrollees enrolled in the demonstration before January 1, 2002. Expenditure means were predicted using ordinary least squares regression models. Treatment group members received services if they received agency care or an allowance; control group members received services if they received agency care.

\* Estimated effect significantly different from zero at .10 level.

\*\* Estimated effect significantly different from zero at .05 level.

\*\*\* Estimated effect significantly different from zero at .01 level.

for the nonelderly during year 2, where 85 percent of the treatment group, but only 68 percent of the control group, received any PCS.<sup>17</sup>

In Florida, the program had no effect on whether beneficiaries received any waiver services in year 1, as about 99 percent of both elderly and nonelderly treatment and control group members received at least some paid services (Table 2c). Similarly, more than 97 percent of the nonelderly treatment and control groups received at least some paid services during the second postenrollment year. However, in that year, 81 percent of the elderly treatment group received services, about 6 points more than the percentage receiving services in the control group.

### **Program Effects on Expenditures for the Costed-Out Service, Year 1**

Partly because the program increased access to paid care, treatment group costs for the costed-out service (personal care in Arkansas and New Jersey and waiver services in Florida) were significantly and substantially higher than those for the control group in all three states. In Arkansas, during the first year postenrollment, treatment group members had average annual personal care expenditures of \$4,605, nearly twice the figure for the control group (Table 2a).<sup>18</sup> The impacts of the program on personal care costs in the other two states were smaller. In New Jersey, personal care costs for the treatment group were \$1,587 (or 16 percent) higher than those for the control group (Table 2b). Similarly, the costs for waiver services in Florida were \$2,108 (or 15 percent) higher for the treatment group than for the control group (Table 2c).

In all three states, the treatment-control difference in costs for personal care/waiver services was greater for the nonelderly than for the elderly. The program's differential effects for the two

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<sup>17</sup> During the study period, the state began intensively scrutinizing beneficiary appropriateness for personal care, which resulted in denial of services to some longtime recipients. This change should have reduced the percentage of sample members receiving services in both the treatment and control groups.

<sup>18</sup> If recoupment were factored in, the treatment-control difference in personal care expenditures would fall from \$2,349 to about \$2,200.



TABLE 2c

## EFFECT OF CASH AND COUNSELING ON RECEIPT AND COST OF PAID SERVICES IN FLORIDA

	Cohort of Early Enrollees											
	Full Sample, Year 1					Year 2						
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Nonelderly</b>												
Percentage Receiving Any Service	99.6	99.8	-0.2	0.562	99.8	99.8	0.0	0.991	97.6	97.4	0.2	0.856
Expenditures for Waiver Services	22,017	18,321	3,696**	0.000	22,467	18,918	3,549***	0.000	24,932	21,491	3,441***	0.001
<b>Sample Size</b>	<b>913</b>				<b>833</b>				<b>833</b>			
<b>Elderly</b>												
Percentage Receiving Any Service	99.1	98.7	0.5	0.520	99.3	98.3	1.0	0.249	81.1	75.5	5.6*	0.097
Expenditures for Waiver Services	10,496	10,063	433	0.223	10,412	9,601	811*	0.077	8,983	8,328	655	0.328
<b>Sample Size</b>	<b>904</b>				<b>531</b>				<b>531</b>			
<b>All Ages</b>												
Percentage Receiving Any Service	99.3	99.2	0.1	0.779	99.6	99.2	0.4	0.320	90.7	88.4	2.3	0.151
Expenditures for Waiver Services	16,301	14,193	2,108***	0.000	17,508	14,999	2,507***	0.000	18,354	15,978	2,375***	0.000
<b>Sample Size</b>	<b>1,817</b>				<b>1,424</b>				<b>1,424</b>			

Source: Early enrollees enrolled in the demonstration before October 1, 2001. Expenditure means were predicted using ordinary least squares regression models. Treatment group members received services if they received waiver services or an allowance; control group members received services if they received waiver services.

\* Estimated effect significantly different from zero at .10 level.

\*\* Estimated effect significantly different from zero at .05 level.

\*\*\* Estimated effect significantly different from zero at .01 level.

age groups was most pronounced in Florida, where the treatment-control difference in costs for waiver services was \$3,696 for the nonelderly but only \$433 (and statistically insignificant) for the elderly. (It is not particularly surprising that there was little treatment-control difference in costs for the elderly, since only 40 percent of the elderly treatment group actually received an allowance. Most elderly treatment group members simply participated in the traditional program.)

For the cohort of early enrollees, we compared expenditures for the costed-out service during the second year postenrollment to those of the first year (Tables 2a through 2c). In Arkansas, the treatment-control difference was somewhat smaller in dollars (\$2,014 in year 2, compared with \$2,453 in year 1) but larger as a percentage of the control group mean (110 percent in year 2, compared with 102 percent in year 1). In New Jersey, the treatment-control difference about doubled from \$1,381 (14 percent) to \$2,545 (29 percent). In Florida, the treatment-control difference in year 2 of \$2,375 (15 percent) was similar to that of year 1 (\$2,507).

### **Program Impacts per Recipient**

Reasons for the treatment-control cost differences vary across states. At least part of the difference in Arkansas and New Jersey stems from the fact that the treatment group was more likely to receive at least some paid services during each month of the study period. Even among those who received services in a given month, however, expenditures for the costed-out service for the treatment group were higher than those for the control group for at least one of the age groups in each of the three states.

In particular, in Arkansas, the expenditures *per month of personal care benefit received* were, on average, \$86 (24 percent) higher for the treatment group (\$445) than for the control group (\$359; see Table 3a). The treatment-control difference in personal care costs per recipient

TABLE 3a

EFFECT OF CASH AND COUNSELING ON PERSONAL CARE EXPENDITURES PER  
RECIPIENT MONTH IN ARKANSAS

Expenditure Outcome	Sample Size	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
All Enrollees					
Nonelderly					
Expenditures per recipient month, first follow-up year	454	513	422	91***	0.000
Elderly					
Expenditures per recipient month, first follow-up year	1,269	420	336	84***	0.000
Elderly and Nonelderly					
Expenditures per recipient month, first follow-up year	1,723	445	359	86***	0.000
Early Enrollees Only <sup>a</sup>					
Nonelderly and Elderly					
Expenditures per recipient month, first follow-up year	1,125	465	363	102***	0.000
Expenditures per recipient month, second follow-up year	879	467	369	98***	0.000

Source: Medicaid claims data for the period from December 1997 through April 2002.

Note: Means were predicted using ordinary least squares regression models.

<sup>a</sup>Early enrollees were those who enrolled in the demonstration before May 2000.

\*Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

month was similar for elderly and nonelderly enrollees, as well as for the first and second postenrollment years.

In New Jersey, there were only modest treatment-control differences in costs per recipient month in both postenrollment years, and these differences were entirely driven by the nonelderly. In particular, expenditures per recipient for the nonelderly treatment group were \$47 (four percent) higher than those for the nonelderly control group in year 1 (Table 3b). The difference was slightly greater (\$72, or six percent) in year 2 (not shown). In contrast, for the elderly, monthly costs per recipient for the treatment group were almost identical to those for the control group.

Finally, in Florida, monthly costs per recipient were \$168 (13 percent) higher for the treatment group than for the control group during year 1, but this difference was driven entirely by the nonelderly (Table 3c). Nonelderly costs per recipient for the treatment group averaged nearly \$300 (18 percent) per month higher than those for the control group during the first postenrollment year, while costs for the elderly treatment group were not significantly different from those for the control group. Again, the treatment-control difference in waiver costs per recipient was similar in both postenrollment years.

### **Comparisons of Actual Costs with Expected Costs**

To illuminate further why expenditures for the costed-out service were higher for treatment than for control group recipients, we compare monthly ratios of average “actual full costs” (expenditures for the costed-out service plus expenditures for fiscal agent and counseling services) with average “expected full costs” (the value of the recipients’ discounted care plan at baseline plus expected costs for fiscal agent and counseling services). In Arkansas, we also compare the actual allowance costs (excluding fiscal agent and counseling costs) with the “expected allowance” (the value of the recipients’ discounted care plan at baseline). Because

TABLE 3b

EFFECT OF CASH AND COUNSELING ON PERSONAL CARE EXPENDITURES PER RECIPIENT MONTH  
IN NEW JERSEY

	Sample Size	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
All Enrollees					
Nonelderly					
First-year expenditures per recipient month	745	1,153	1,106	47**	0.043
Elderly					
First-year expenditures per recipient month	855	1,170	1,172	-2	0.926
All					
First-year expenditures per recipient month	1,600	1,164	1,140	25	0.112
Early Enrollees Only					
All (Nonelderly and Elderly) Early Enrollees					
First-year expenditures per recipient month	1,344	1,151	1,129	22	0.193
Second-year expenditures per recipient month	1,121	1,264	1,219	45*	0.051

Source: Medicaid claims data.

Note: Early enrollees enrolled in the demonstration before January 1, 2002. Means were predicted using ordinary least squares regression models. Treatment group members received services if they received agency care or an allowance; control group members received services if they received agency care.

\* Estimated effect significantly different from zero at .10 level.

\*\* Estimated effect significantly different from zero at .05 level.

\*\*\* Estimated effect significantly different from zero at .01 level.

TABLE 3c

EFFECT OF CASH AND COUNSELING ON WAIVER EXPENDITURES PER RECIPIENT  
MONTH IN FLORIDA

	Sample Size	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
All Enrollees					
Nonelderly					
Expenditures per recipient month, first follow-up year	910	1,884	1,593	291***	0.000
Elderly					
Expenditures per recipient month, first follow-up year	894	983	967	16	0.509
All					
Expenditures per recipient month, first follow-up year	1,804	1,460	1,292	168***	0.000
Early Enrollees Only					
All (Nonelderly and Elderly)					
First-year expenditures per recipient month	1,415	1,553	1,357	197***	0.000
Second-year expenditures per recipient month	1,275	1,814	1,630	184***	0.001

Source: Medicaid claims data.

Note: Early enrollees enrolled in the demonstration before October 1, 2001. Means were predicted using ordinary least squares regression models. Treatment group members received services if they received waiver services or an allowance; control group members received services if they received waiver services.

- \* Estimated effect significantly different from zero at .10 level.
- \*\* Estimated effect significantly different from zero at .05 level.
- \*\*\* Estimated effect significantly different from zero at .01 level.

Arkansas incurred substantial savings on fiscal agent and counseling services, the ratios for allowance recipients are very different, depending on whether fiscal agent and counseling costs are included.

This analysis shows that costs per recipient were higher for the treatment group than for the control group, for two reasons: (1) control group personal care recipients incurred lower-than-expected costs each month, and (2) treatment group allowance recipients appeared to be more likely than control group members to receive sizable increases in their care plans.

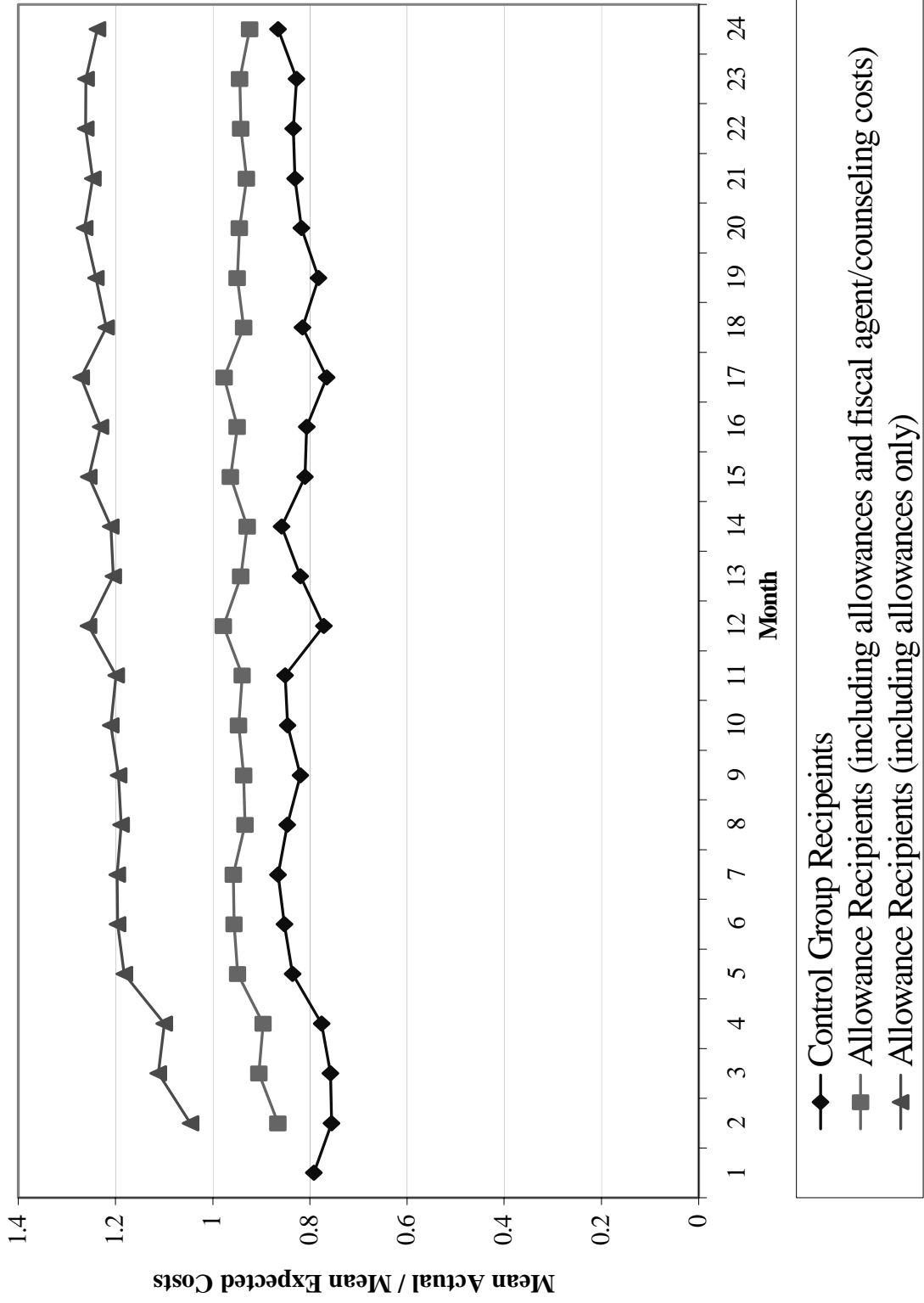
**Underservice in the Control Group.** In each state, particularly in the first postenrollment year, control group recipients had ratios lower than 1. This means that their average actual full costs were lower than their expected full costs.<sup>19</sup> Underservice in the control group was particularly problematic in Arkansas, where both nonelderly and elderly personal care recipients incurred only about 80 percent of their expected (already discounted) full costs during both the first and the second postenrollment year (Figures 1a and 1b). During the first postenrollment year in New Jersey, actual full costs were also lower than expected full costs for control group recipients, with monthly ratios for the nonelderly ranging from .86 to .92 (Figure 2a) and monthly ratios for the elderly ranging from .93 to 1 (Figure 2b).

Control group recipients' average full costs rose over time; in New Jersey, they were on par with their expected full costs by the second year. Underservice for the control group was modest in Florida and pertained only to the nonelderly. While nonelderly waiver recipients in the control group in Florida had an average ratio of about .9 during the early months of the demonstration, their waiver expenditures increased over time. By the end of the first year, control group recipients' average actual full costs were on par with their expected full costs. By

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<sup>19</sup> Except in New Jersey (where care plans were not adjusted), we calculated expected costs according to the discounted value of the care plan.

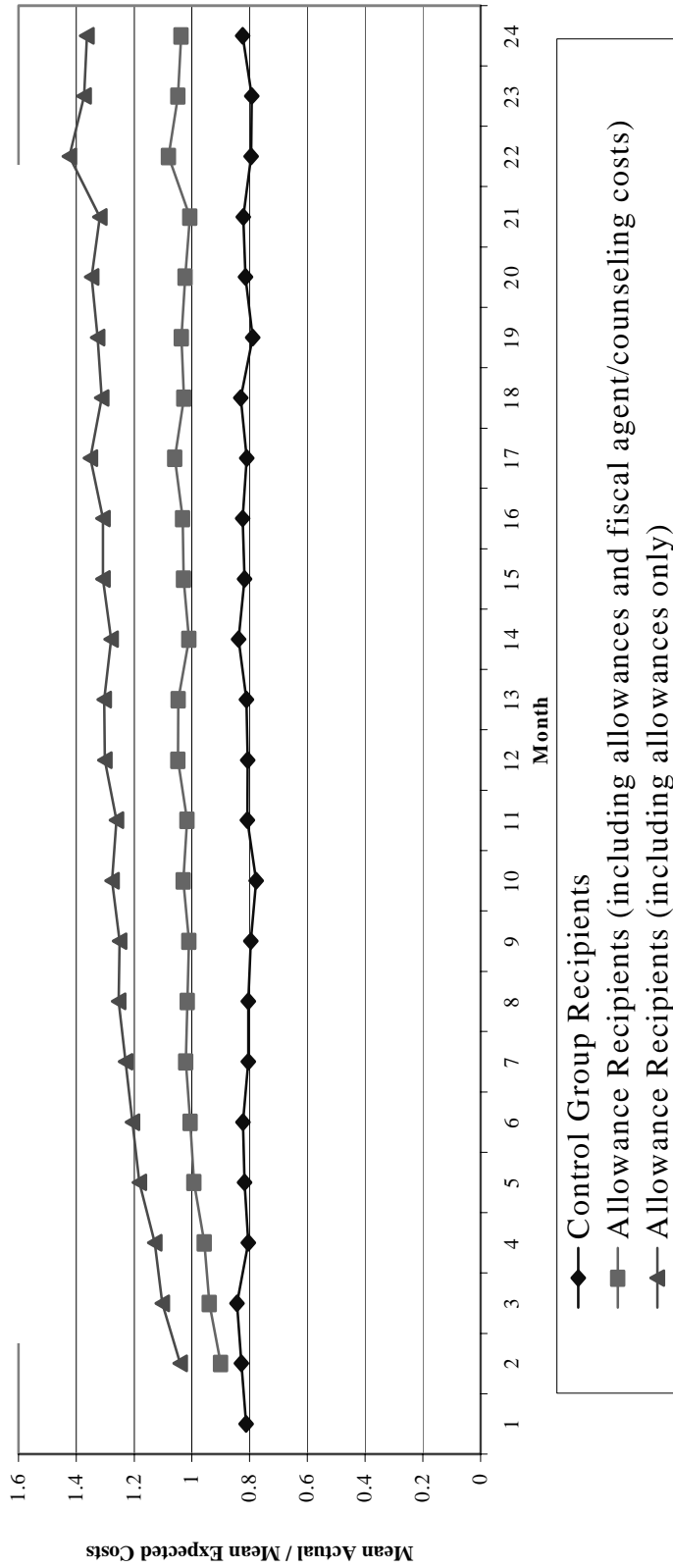
**Figure 1a**  
**Arkansas's Ratios of Mean Actual to Mean Expected Cost Ratios for the Nonelderly**



Notes: The first month is excluded for allowance recipients, since the first allowance often was prorated. The care plan is discounted in calculating expected costs.

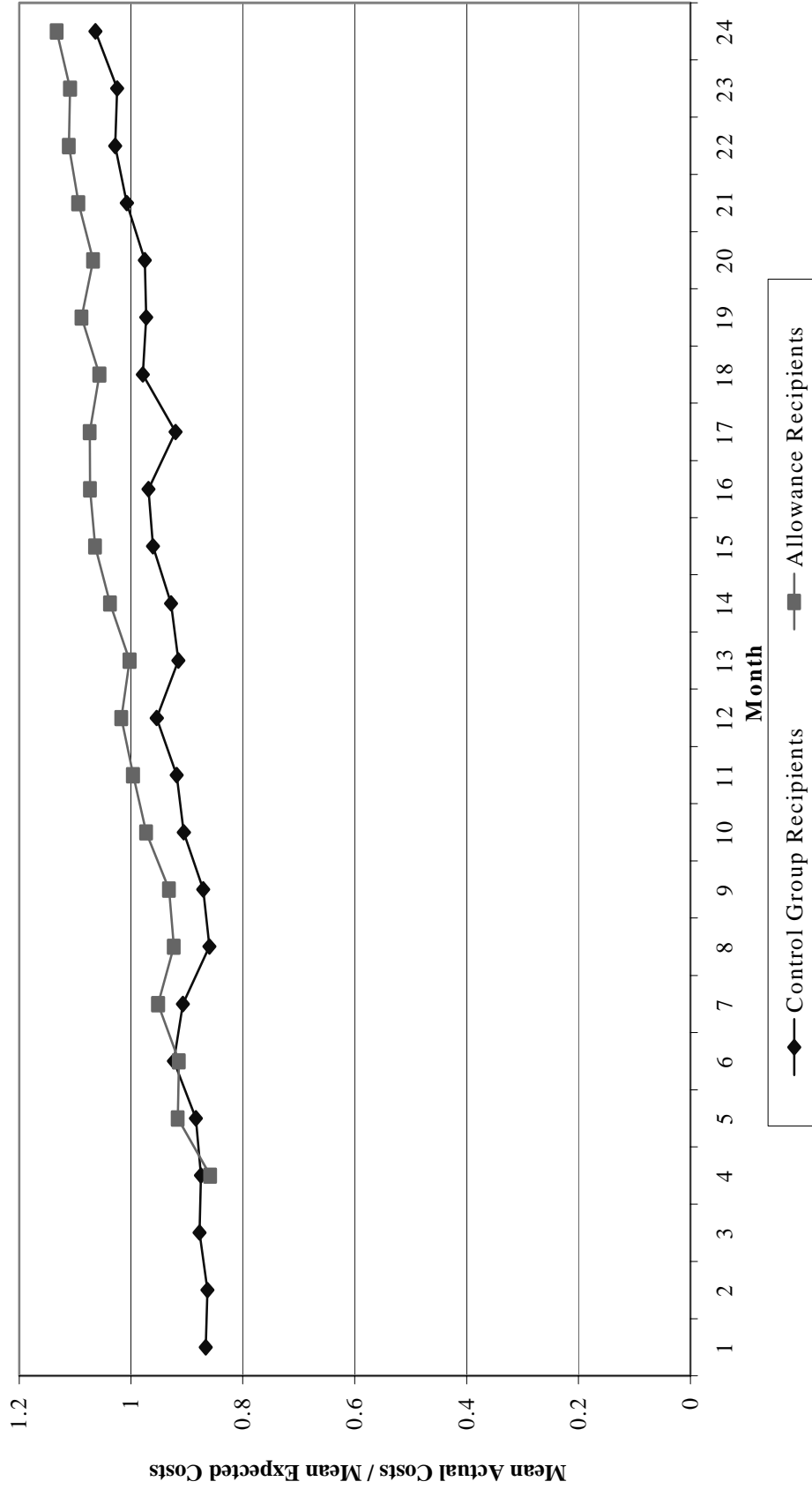


**Figure 1b**  
**Arkansas's Ratios of Mean Actual to Mean Expected Cost Ratios for the Elderly**



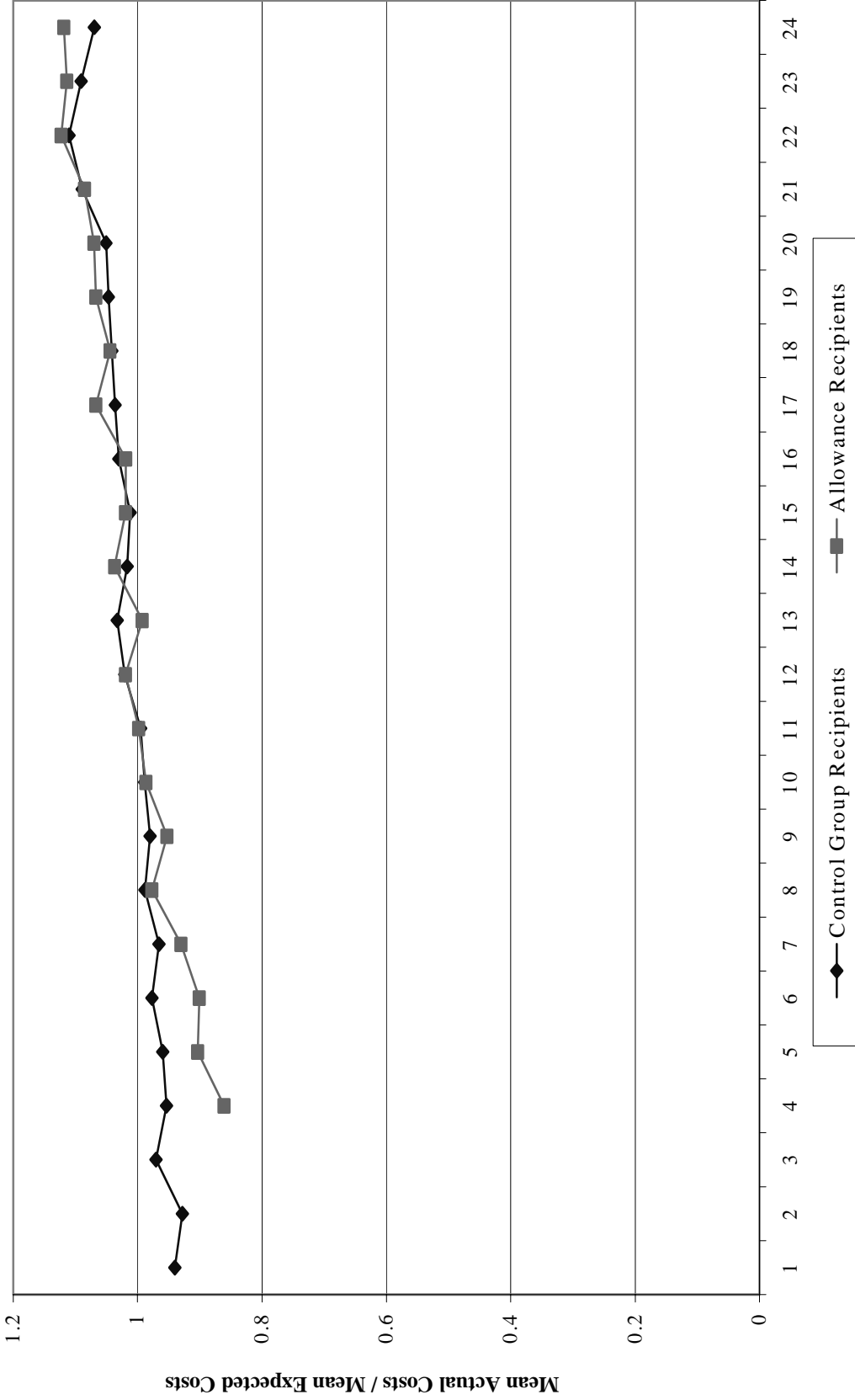
Notes: The first month is excluded for allowance recipients, since the first allowance often was prorated. The care plan is discounted in calculating expected costs.

**Figure 2a**  
**New Jersey's Ratios of Mean Actual to Mean Expected Costs for the Nonelderly**



Notes: Early months are excluded for allowance recipients since few (less than 100) individuals had received full allowances.

**Figure 2b**  
**New Jersey's Ratios of Mean Actual to Mean Expected Costs for the Elderly**



Notes: Early months are excluded for allowance recipients since few (less than 100) individuals had received full allowances.

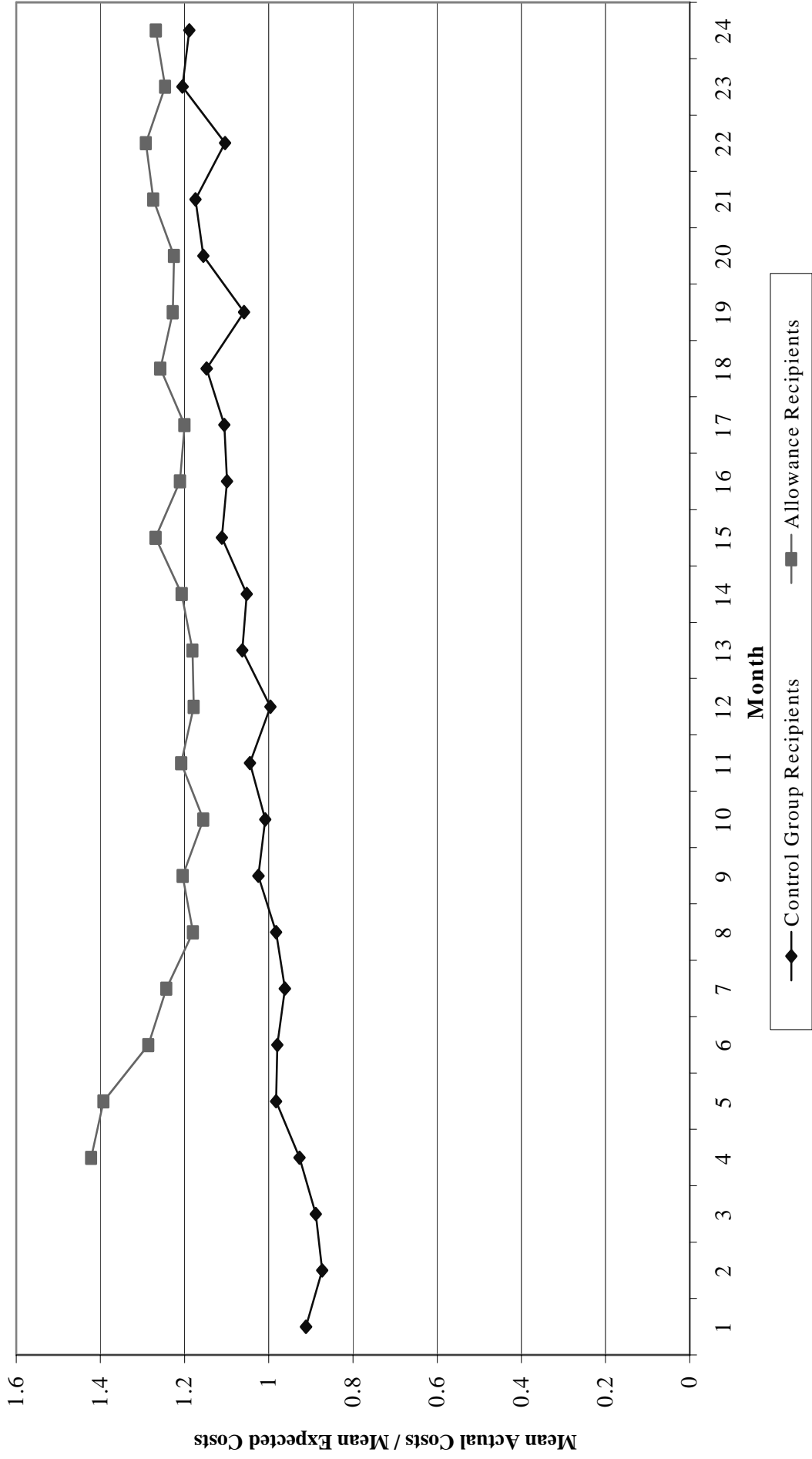
the end of the second year, average actual full costs were 20 percent greater than their expected full costs (Figure 3a).

**Relatively Generous Reassessments for Allowance Recipients.** In Arkansas, actual allowance costs (excluding fiscal agent and counseling costs) among recipients were similar to their expected allowance costs during the early part of year 1 (Figures 1a and 1b). By month 6, the average allowance was about 20 percent higher than the average expected allowance costs; by the end of the first year and throughout the second year, it was 28 to 32 percent higher.<sup>20</sup> The increase in allowances appears to stem from the fact that a small percentage of treatment group members received reassessments with sizable increases in their care plan. (Between baseline and month 12, about 9 percent of treatment group members received increases of 16 to 32 hours per month in their care plans, and 7 percent of treatment group members received increases of more than 32 hours per month (about 35 to 70 percent of the overall mean care plan hours; see Dale et al. 2004a)). Nonetheless, actual full costs (including allowance costs plus fiscal agent/counseling costs) for both elderly and nonelderly allowance recipients were similar to expected full costs throughout the first and second years (nonelderly ratios were .92 to .98; elderly ratios typically were 1 to 1.05). In spite of increased allowances, actual full costs remained similar to expected full costs, because Arkansas decreased the amount it paid for monthly fiscal agent/counseling costs over the course of the demonstration.

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<sup>20</sup> In general, we would expect the ratio of actual costs to baseline costs to increase, as beneficiaries may need more care as their health worsens, and agency wage rates per hour of care delivered (and the rate at which the allowance was cashed out) might increase. However, we would expect the trend to be similar for the treatment and control groups.

**Figure 3a**  
**Florida's Ratios of Mean Actual to Mean Expected Costs for the Nonelderly**



Notes: Early months are excluded for allowance recipients since few (less than 100) individuals had received full allowances.

In New Jersey, during the early months postenrollment, both elderly and nonelderly allowance recipients received about 90 percent of their expected full costs (Figures 2a and 2b).<sup>21</sup> For allowance recipients, however, ratios increased, and actual full costs were about equal to expected full costs by month 12. By the end of the second year, actual full costs were about 13 percent higher than their expected full costs. Control group recipients' ratios also rose. By the end of the second year, the average ratios were only 1.06 for the nonelderly and 1.07 for the elderly. Thus, the treatment group may have received favorable reassessments, as its monthly ratios were several percentage points higher than those of the control group. It is unclear, however, why Medicaid nurses would have been more generous in their assessments than the agencies responsible for assessing the control group. Alternatively, it may be that the increases the control group members received in their care plans when they were reassessed were similar to those of the treatment group members but that agencies could not provide all the care authorized.<sup>22</sup>

For the nonelderly in Florida, allowance recipients' actual costs were higher than expected full costs throughout the two-year period but stayed relatively flat at about 1.2 (Figure 3a). Reassessment data were not available for Florida. However, we can infer from the ratios of actual to expected costs that a sizable minority of consumers received increases in their care plans when their spending plan was approved. For example, during the first four months

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<sup>21</sup> Because the allowance was prorated, some consumers who started receiving an allowance mid-month could appear to have lower-than-expected costs.

<sup>22</sup> New Jersey's reassessment data for allowance recipients indicated that, by the end of the second year, about a quarter of allowance recipients were authorized to receive 5 to 30 percent more hours of care than they had at baseline, and another quarter were authorized to receive an increase of more than 30 percent. Some allowance recipients did receive reductions in their care plans, as a quarter of them had at least five percent fewer hours in their care plans than they did at baseline. We do not know whether control group members received a pattern of reassessments similar to that of treatment group members, as data were not available for members of the former group.

postenrollment, the median actual full costs for allowance recipients were at least 50 percent higher than their expected full costs (not shown), although only a few treatment group members developed spending plans soon after enrollment. During months 5 and 6 postenrollment (when most treatment group members started receiving allowances), the median ratio was approximately 1; still, a quarter of allowance recipients incurred actual costs that were at least 55 percent more than their expected full costs.

For the elderly in Florida, at the beginning of the demonstration, cost ratios were slightly higher than 1 for both allowance recipients and control group recipients (Figure 3b). Over time, cost ratios rose for both groups. In fact, the cost ratios for the control group (around 1.3 for most of the second year) were higher than those for allowance recipients (which ranged from 1.1 to 1.2 for most of the second year). Thus, for the elderly in Florida, the pattern of allowance recipients' having higher ratios than control group recipients was reversed.

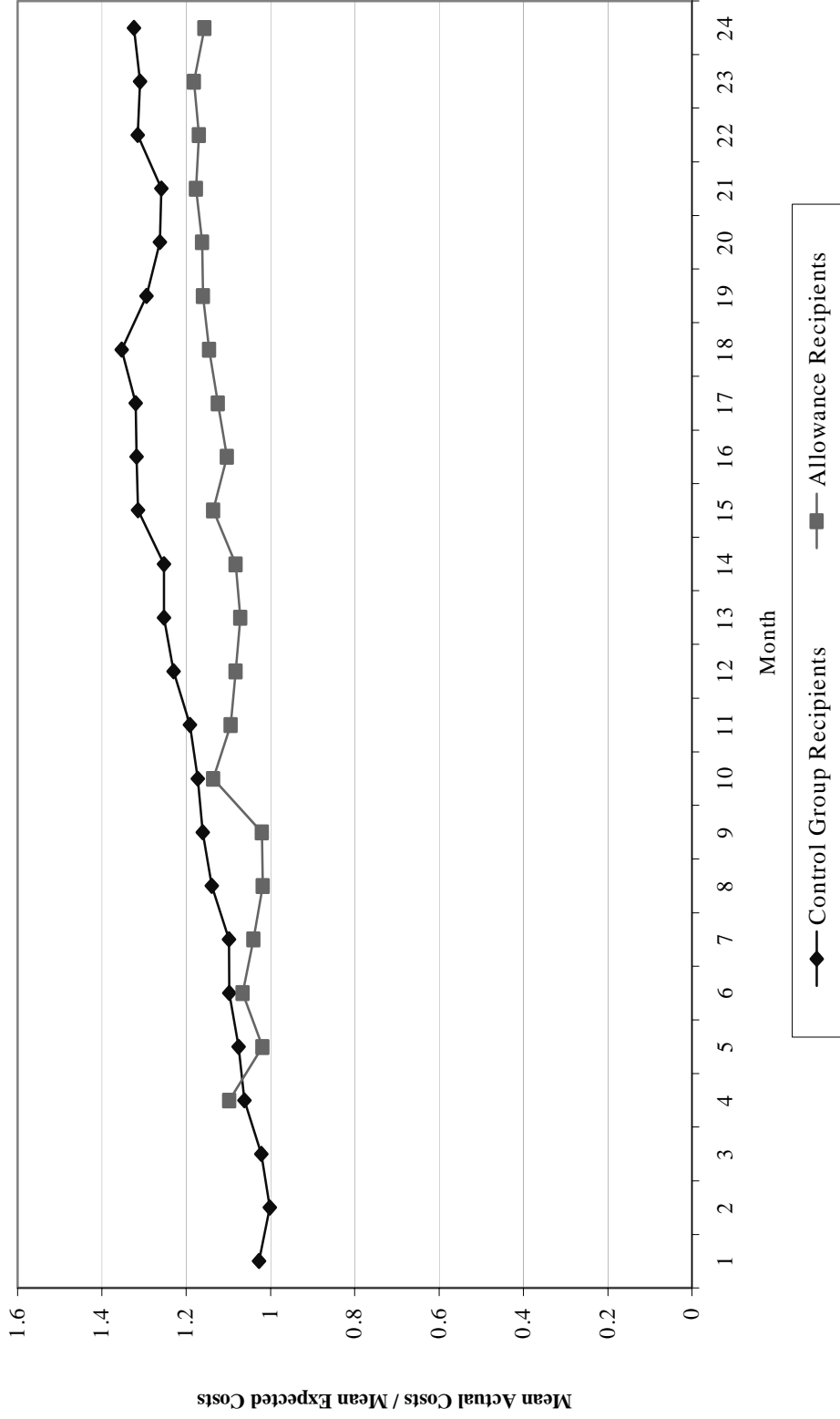
### **Program Effects on Other Medicaid and Medicare Costs**

Cash and Counseling affected costs for other Medicaid and Medicare services besides that of the costed-out service. Most notably, in Arkansas and New Jersey, expenditures for long-term care services for the treatment group were lower than those for the control group. In all three states, however, the program had little effect on other Medicare services, such as hospital expenditures, physician services, hospice, or durable medical equipment.

#### **Arkansas**

**Year 1.** In Arkansas, the treatment group's higher PCS expenditures were partially offset by lower expenditures for other Medicaid services during the first year postenrollment. Annual hospital inpatient expenditures for the full sample were \$205 lower for the treatment group than for the control group; this difference was driven by the program's annual reduction of \$824 in

**Figure 3b**  
**Florida's Ratios of Mean Actual to Mean Expected Costs for the Elderly**



Notes: Data for early months are excluded for allowance recipients since few (less than 50) individuals received full allowances. Baseline costs include the discounted care plan value plus expected fiscal agent and counseling costs.



hospital expenditures for the nonelderly enrollees (Table 4a).<sup>23</sup> The overall pattern of impacts for the other types of services suggests that, particularly for the nonelderly, the program decreased expenditures for services for which PCS was a close substitute—home health and nursing facility services—as well as for the ElderChoices and Alternatives waiver programs. The expenditures for each of these services were lower for the treatment group than for the control group, although the effects generally were not statistically significant. The sole exception was that nursing facility expenditures for nonelderly treatment group members were significantly lower, on average, than those for nonelderly control group members.

Overall, the treatment group's lower expenditures for these other Medicaid services only partly offset the group's higher personal care expenditures. Therefore, for the full sample, total Medicaid expenditures in Arkansas were \$1,531 (14 percent) higher for the treatment group than for the control group during the first year postenrollment, a statistically significant difference.

Cash and Counseling did not significantly affect Medicare expenditures for particular services and in total. Because of the increase in total Medicaid expenditures, for the full sample, the treatment group's combined Medicaid and Medicare expenditures (\$21,653) were significantly higher than the control group's (\$20,227).

**Comparison of Year 2 with Year 1.** For the cohort of early enrollees in Arkansas, the treatment-control difference in total Medicaid expenditures was significant during the first year (\$1,420, or 13 percent); during the second year, however, it was much smaller and *not* statistically significant (\$500, or 5 percent; Table 4b). The treatment-control difference in

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<sup>23</sup> The lower inpatient expenditures for the small sample of nonelderly treatment group members could have been due to beneficial effects of consumer direction on consumers' health, such as fewer pressure sores or contractures. However, the treatment-control difference in the proportion of nonelderly consumers with any inpatient expenditure was not statistically significant, nor was there a significant reduction in inpatient expenditures during the second year. Thus, the reduction in inpatient expenditures seems more likely to have been due to chance than to large effects on the need for or cost of hospitalizations.

TABLE 4a

## EFFECT OF CASH AND COUNSELING ON ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES DURING THE FIRST POSTENROLLMENT YEAR IN ARKANSAS

Expenditure Category	Nonelderly				Elderly				All			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Medicaid</b>												
Personal care	5,435	2,430	3,005***	0.000	4,313	2,292	2,021***	0.000	4,605	2,349	2,256***	0.000
Nonpersonal care	8,689	10,432	-1,743**	0.035	7,211	7,530	-320	0.197	7,613	8,339	-726**	0.014
Total	14,125	12,862	1,263	0.136	11,523	9,822	1,701***	0.000	12,219	10,688	1,531***	0.000
Medicare	5,986	5,884	102	0.942	10,888	10,806	82	0.917	9,434	9,539	-105	0.878
Combined Medicaid and Medicare	20,111	18,746	1,365	0.418	22,411	20,628	1,784**	0.044	21,653	20,227	1,426*	0.071
<b>Medicaid Type of Service</b>												
Personal care	5,435	2,430	3,005***	0.000	4,313	2,292	2,021***	0.000	4,605	2,349	2,256***	0.000
Nursing facility	18	242	-224**	0.030	821	917	-96	0.592	592	737	-146	0.269
Home health	594	916	-322	0.123	187	231	-43	0.125	311	410	-99	0.106
ElderChoices	11	13	-2	0.917	2,673	2,810	-137	0.282	1,919	2,053	-134	0.147
Alternatives	934	1,122	-188	0.565	n.a	n.a	n.a	n.a	265	304	-40	0.714
Inpatient care	1,087	1,911	-824**	0.036	437	439	-2	0.946	629	833	-205*	0.061
Prescription drugs	2,717	2,495	221	0.317	1,799	1,851	-51	0.511	2,048	2,035	12	0.881
Transportation	266	322	-56	0.492	53	61	-8	0.604	113	133	-20	0.410
Case management	22	15	7	0.413	111	115	-4	0.705	85	89	-3	0.657
DME	567	719	-152	0.106	283	282	1	0.929	361	403	-42	0.134
Hospice	112	19	94	0.465	28	9	19	0.428	49	13	36	0.346
Other services <sup>a</sup>	2,362	2,659	-297	0.313	818	815	3	0.970	1,243	1,328	-84	0.343
<b>Medicare Type of Service</b>												
Nursing facility	56	37	19	0.689	639	656	-16	0.891	476	486	-10	0.913
Home health	216	359	-143	0.207	1,050	1,060	-9	0.945	823	862	-39	0.705
DME	741	686	54	0.751	952	1,038	-86	0.351	908	926	-18	0.824
Inpatient	2,947	3,105	-158	0.887	5,465	5,488	-23	0.966	4,646	4,949	-303	0.540
Hospice	98	6	92	0.403	42	146	-103	0.138	56	109	-52	0.367
Other	1,928	1,690	238	0.492	2,739	2,419	320	0.174	2,525	2,207	318	0.103
<b>Sample Size</b>	<b>556</b>				<b>1,452</b>				<b>2,008</b>			

TABLE 4a (continued)

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Source: Medicaid and Medicare claims data, for the period from December 1997 through April 2002.

Note: Means were predicted using ordinary least squares regression models.

<sup>a</sup>Mainly laboratory services, X rays, and physicians' services.

DME = durable medical equipment; n.a. = not applicable.

\*Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

TABLE 4b

## EFFECTS OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES IN ARKANSAS, BY YEAR

Expenditure Category	First Year Postenrollment				Second Year Postenrollment			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
Medicaid								
Personal care	4,855	2,402	2,453***	0.000	3,852	1,839	2,014***	0.000
Nonpersonal care	7,229	8,261	-1,033***	0.006	7,229	8,743	-1,514***	0.003
Total	12,083	10,663	1,420**	0.000	11,082	10,582	500	0.359
Medicare	8,827	9,261	-435	0.606	7,948	8,091	-143	0.859
Combined Medicaid and Medicare	20,910	19,924	986	0.309	19,030	18,673	357	0.736
Medicaid Type of Service								
Personal care	4,855	2,402	2,453***	0.000	3,852	1,839	2,014***	0.000
Nursing facility	460	696	-235	0.125	1,149	1,749	-600**	0.045
Home health	337	479	-142	0.109	218	373	-156**	0.012
ElderChoices	1,752	1,961	-209**	0.047	1,384	1,585	-202	0.147
Alternatives	344	260	83	0.512	503	602	-99	0.577
Inpatient	594	853	-259*	0.086	594	743	-149	0.218
Prescription drugs	1,988	2,026	-38	0.707	1,817	1,917	-99	0.388
Transportation	85	137	-52**	0.029	102	150	-48	0.263
Case management	80	80	-1	0.950	51	61	-9	0.258
DME	349	406	-57	0.113	289	294	-5	0.894
Hospice	54	3	50	0.335	43	14	29	0.326
Other services <sup>a</sup>	1,187	1,360	-173	0.120	1,079	1,254	-175	0.309

TABLE 4b (continued)

Expenditure Category	First Year Postenrollment				Second Year Postenrollment			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
Medicare Type of Service								
Nursing facility	381	383	-2	0.984	384	649	-265**	0.027
Home health	791	671	120	0.337	635	634	1	0.992
DME	803	878	-75	0.422	689	854	-164	0.116
Inpatient	4,504	5,079	-575	0.370	3,953	3,811	142	0.796
Hospice	84	169	-85	0.341	15	78	-64	0.154
Other	2,264	2,081	182	0.326	2,272	2,065	207	0.391
<b>Sample Size</b>	<b>658</b>	<b>654</b>			<b>658</b>	<b>654</b>		

Source: Medicaid and Medicare claims data for the period from December 1997 through April 2002.

Note: Early enrollees were those who enrolled in the demonstration before May 2000.

\*Mainly laboratory services, X rays, and physicians' services.

DME = durable medical equipment.

\*Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

combined Medicaid and Medicare expenditures was smaller during the second year than during the first. Even during the first year, however, the effect of the program on combined Medicaid and Medicare expenditures was statistically insignificant for this smaller cohort.

The change in the program's impact on total Medicaid costs from the first to the second year was due to two factors. First, the treatment-control gap in personal care costs narrowed. The percentage of sample members in both groups who received any PCS fell by about 20 percent.<sup>24</sup> However, expenditures per recipient month for the treatment group (about \$466 during both years; see Table 3a) were higher than for the control group (about \$365 in both years). Thus, the decrease in the proportion receiving any personal care led to a larger reduction in average expenditures per treatment group member between the first and second years than in average expenditures per control group member. Therefore, the treatment-control difference in personal care expenditures during the second year (\$2,014) was smaller than the groups' first-year difference (\$2,453) (Table 5a).

The second reason for the change in total expenditure impacts between the first and second years pertains to expenditures for nonpersonal care. The treatment-control savings in nonpersonal care Medicaid expenditures during the second year (\$1,514) was greater than during the first (\$1,033), mainly because of the program's savings on nursing facility expenditures. In particular, the treatment group's savings in Medicaid nursing facility expenditures was \$600 during the second year, more than twice the \$235 savings observed during the first.

## **New Jersey**

**Year 1.** In New Jersey, for the full sample, savings in other (nonpersonal care) Medicaid expenditures offset about half the treatment group's higher personal care expenditures during the

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<sup>24</sup> Most of those who received PCS in the first year but not in the second had died or entered nursing facilities.

TABLE 5a

## EFFECT OF CASH AND COUNSELING ON ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES DURING THE FIRST POSTENROLLMENT YEAR IN NEW JERSEY

Dependent Variable	Nonelderly				Elderly				Full Sample			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Total Personal Care, Medicaid, and Medicare</b>												
Personal care	11,166	9,220	1,946***	0.000	11,891	10,650	1,241***	0.001	11,557	9,970	1,587***	0.000
Nonpersonal care	15,697	16,829	-1,132	0.430	8,345	8,757	-413	0.501	11,813	12,540	-727	0.333
Total Medicaid	26,863	26,049	814	0.588	20,236	19,407	828	0.224	23,370	22,509	861	0.281
Total Medicare	10,886	10,345	541	0.790	15,809	13,012	2,796	0.216	13,459	11,802	1,657	0.284
Total Medicaid plus Medicare	37,749	36,394	1,355	0.591	36,044	32,420	3,625	0.137	36,829	34,311	2,518	0.154
<b>Other Medicaid Expenditures, by Type of Service</b>												
Nursing facility	266	621	-354	0.275	521	1,170	-649**	0.046	404	908	-505**	0.027
Home health	822	1,242	-420*	0.082	208	351	-143	0.135	502	765	-263**	0.034
Inpatient	3,755	3,628	126	0.899	1,724	1,484	240	0.497	2,674	2,497	177	0.727
Transportation	978	1,186	-208	0.236	457	539	-82	0.364	700	845	-145	0.129
Prescription drugs	4,420	5,080	-661	0.184	3,721	3,648	74	0.662	4,053	4,320	-267	0.291
Physician	114	95	19	0.529	19	20	-1	0.883	64	55	9	0.537
DME	669	575	93	0.655	34	56	-22	0.218	341	291	49	0.619
Case management	8	6	1	0.806	0	0	0	NA	3	3	0	0.912
Hospice	147	20	127	0.254	145	-1	146	0.110	146	9	136*	0.055
Capitation amount	883	900	-16	0.875	176	189	-13	0.798	513	518	-5	0.930
Other	3,636	3,476	160	0.667	1,339	1,302	37	0.872	2,414	2,328	86	0.687
<b>Medicare Expenditures, by Type of Service</b>												
Medicare nursing facility	228	322	-94	0.445	795	696	99	0.625	535	514	21	0.863
Home health	575	534	41	0.761	942	1,108	-166	0.341	767	841	-74	0.508
Inpatient	6,567	5,221	1,346	0.399	8,571	6,233	2,339	0.230	7,588	5,801	1,786	0.164
Physician	181	219	-39	0.153	399	401	-1	0.966	295	317	-22	0.252
DME	591	511	80	0.490	588	575	12	0.874	586	548	38	0.582
Hospice	33	-2	34	0.158	64	6	59	0.356	51	1	49	0.161
Other	2,712	3,539	-827	0.113	4,449	3,994	454	0.266	3,638	3,779	-141	0.672
<b>Sample Size</b>	<b>813</b>	<b>917</b>			<b>917</b>	<b>917</b>			<b>1,730</b>	<b>1,730</b>		

TABLE 5a (continued)

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Source: Medicaid and Medicare claims data.

Notes: Early enrollees enrolled in the demonstration before January 1, 2002. Means were predicted using ordinary least squares regression models.

DME = durable medical equipment.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.



first postenrollment year. Notably, for the full sample, there were significant savings in nursing facility (\$505) and home health services (\$263) (Table 5a). The only Medicaid service category for which treatment group expenditures were higher than those for the control group was hospice services (by \$136). In total, the treatment group's Medicaid expenditures (\$23,370) for all services were only \$861 (four percent) higher than those of the control group—a statistically insignificant difference.

Patterns for the elderly and the nonelderly in New Jersey were similar for the first postenrollment year. The effects of the program were generally not statistically significant, however, because of the smaller samples when the effects are analyzed separately. There were two exceptions: (1) for the nonelderly, the program incurred significant savings in home health (\$419); and (2) for the elderly, the program incurred significant savings in nursing facility services (\$646). For both the elderly and the nonelderly, these savings partly offset the treatment group's higher personal care expenditures, which resulted in statistically insignificant treatment-control differences in total Medicaid expenditures.

The program did not significantly affect any of the spending for particular Medicare services, total Medicare services, or total combined Medicaid and Medicare services. (The treatment-control difference in combined Medicaid and Medicare spending (\$2,518) was sizable, although not statistically significant.)

**Comparison of Year 2 with Year 1.** For New Jersey's cohort of early enrollees, the treatment-control difference in personal care expenditures increased from \$1,381 to \$2,545 (Table 5b). This was primarily due to the fact that the gap in personal care receipt increased; the treatment group was 7 percentage points more likely than the control group to receive any personal care in year 1 and 13 percentage points more likely in year 2. A secondary reason for this increase is that care recipients' expenditures per month increased by a larger percentage for

TABLE 5b

EFFECT OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES  
IN NEW JERSEY, BY YEAR

Dependent Variable	Cohort of Early Enrollees							
	Year 1				Year 2			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
Total Personal Care, Medicaid, and Medicare								
Personal care	11,412	10,031	1,381***	0.000	11,337	8,792	2,545***	0.000
Nonpersonal care	11,607	12,660	-1,053	0.185	10,696	10,861	-165	0.825
Total Medicaid	23,019	22,691	328	0.695	22,033	19,653	2,379***	0.006
Total Medicare	13,279	11,521	1,759	0.300	12,217	12,303	-87	0.952
Total Medicaid plus Medicare	36,298	34,211	2,087	0.278	34,249	31,957	2,293	0.203
Medicaid Expenditures, by Type of Service								
Nursing facility	438	887	-449*	0.076	1,055	1,449	-394	0.292
Home health	526	803	-278**	0.048	454	599	-145	0.343
Inpatient	2,440	2,686	-246	0.642	1,975	1,583	392	0.246
Transportation	696	936	-239**	0.028	524	802	-278**	0.010
Prescription drugs	4,089	4,258	-169	0.507	3,734	3,685	49	0.822
Physician	59	57	2	0.878	61	30	30	0.320
DME	383	298	86	0.454	343	173	170	0.144
Case management	4	3	1	0.727	3	5	-2	0.606
Hospice	154	10	145*	0.079	149	46	103	0.211
Capitated payment	373	397	-24	0.673	677	649	29	0.729
Other	2,445	2,327	118	0.612	1,721	1,841	-119	0.663

Table 5b (continued)

Dependent Variable	Cohort of Early Enrollees							
	Year 1				Year 2			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Medicare Expenditures, by Type of Service</b>								
Medicare nursing facility	542	460	82	0.534	681	648	33	0.838
Home health	758	825	-67	0.576	640	740	-100	0.411
Inpatient	7,542	5,582	1,960	0.167	6,518	6,193	324	0.764
Physician	295	312	-17	0.411	294	311	-17	0.465
DME	613	556	58	0.460	621	568	52	0.538
Hospice	40	1	39	0.330	90	88	2	0.981
Other	3,489	3,784	-295	0.411	3,374	3,754	-381	0.317
<b>Sample Size</b>	<b>1,447</b>				<b>1,447</b>			

Source: Medicaid and Medicare claims data.

Notes: Early enrollees enrolled in the demonstration before January 1, 2002. Means were predicted using ordinary least squares regression models.

DME = durable medical equipment.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.

the treatment group than for the control group, possibly due to favorable reassessments or to labor shortages preventing control group members from receiving their authorized care. (As noted earlier, the care plan hours of many allowance recipients increased considerably during the demonstration; however, comparable data were not available for the control group. Members of the control group may have been authorized to receive more care, but, because of labor shortages, agencies may have been unable to provide all of that care.)

Primarily because of the large increase in the treatment-control difference in personal care expenditures, the difference in total Medicaid expenditures in New Jersey also increased (from \$328 to \$2,379). The increase was due, in part, to a sizable decline in savings in other Medicaid services. While there was an estimated savings of \$1,053 on all other Medicaid expenditures during year 1, the savings on other Medicaid services fell to \$165 in year 2 (and was statistically insignificant). As in the first postenrollment year, the increase in total Medicaid and Medicare expenditures was sizable but not statistically significant.

## **Florida**

**Year 1.** The program had only one statistically significant effect on nonwaiver Medicaid costs for any of the samples in Florida in the first postenrollment year: for the elderly, the treatment group had significantly higher home health expenditures (at the .10 level) than the control group (Table 6a).<sup>25</sup> These costs were offset by sizable, but not statistically significant, savings in inpatient and skilled nursing facility services. Because the effects on other Medicaid services offset each other, the program had no effect on total Medicaid costs or on total Medicare costs for the elderly.

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<sup>25</sup> Even this result may be anomalous, as it is driven largely by outliers. The treatment group contained three people with home health costs of more than \$10,000 (one of which was \$30,000), while the control group contained only one. The program had no effect on whether a person received any home health services.

TABLE 6a

## EFFECT OF CASH AND COUNSELING ON ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES DURING THE FIRST POSTENROLLMENT YEAR IN FLORIDA

Dependent Variable	Nonelderly				Elderly				All			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Total Waiver, Medicaid, and Medicare Expenditures</b>												
Total waiver	22,017	18,321	3,696***	0.000	10,496	10,063	433	0.223	16,301	14,193	2,108***	0.000
Nonwaiver	5,416	5,785	-369	0.410	5,475	5,771	-296	0.534	5,443	5,780	-337	0.304
Total Medicaid	27,433	24,106	3,327***	0.000	15,971	15,833	137	0.800	21,745	19,973	1,772***	0.000
Total Medicare	2,434	2,744	-309	0.565	14,498	15,226	-728	0.564	8,467	8,923	-457	0.504
Total Medicaid plus Medicare	29,867	26,849	3,018***	0.002	30,469	31,060	-591	0.674	30,211	28,896	1,315	0.125
<b>Other Medicaid Expenditures, by Type of Service</b>												
Nursing facility	70	130	-60	0.543	893	1,128	-235	0.474	477	628	-151	0.372
Home health	674	833	-159	0.368	233	123	110*	0.073	463	471	-8	0.931
Inpatient	617	760	-143	0.526	620	828	-208	0.173	615	797	-182	0.184
Transportation	89	118	-29	0.418	201	190	11	0.848	145	154	-9	0.805
Prescription drugs	2,128	1,931	197	0.281	2,627	2,756	-129	0.386	2,392	2,325	67	0.569
Physician	460	648	-188	0.175	95	69	26	0.582	283	356	-73	0.319
Case management	12	10	2	0.775	0	4	-4	0.356	6	7	-1	0.848
Hospice	5	12	-8	0.643	170	117	52	0.692	104	47	57	0.399
Capitated payment	950	888	61	0.660	192	138	53	0.486	529	559	-30	0.710
Other	412	453	-41	0.566	446	418	27	0.732	429	435	-6	0.906
<b>Medicare</b>												
Nursing facility	33	141	-108*	0.068	1,012	957	54	0.813	515	552	-37	0.748
Home health expenditures	327	409	-82	0.529	1,761	1,852	-91	0.740	1,061	1,106	-45	0.766
Inpatient	793	1,058	-265	0.423	5,524	5,975	-451	0.571	3,148	3,503	-354	0.405
Physician	94	87	8	0.478	322	317	5	0.855	205	204	1	0.920
DME	445	380	65	0.534	1,491	1,724	-233	0.304	970	1,044	-74	0.554
Hospice	49	28	22	0.687	911	681	230	0.440	491	339	152	0.310
Other	692	642	50	0.755	3,477	3,720	-243	0.417	2,075	2,175	-100	0.563
<b>Sample Size</b>	<b>913</b>				<b>904</b>				<b>1,817</b>			

TABLE 6a (continued)

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Source: Medicaid and Medicare claims data.  
Notes: Means were predicted using ordinary least squares regression models.  
DME = durable medical equipment.

\* Estimated effect significantly different from zero at .10 level.  
\*\* Estimated effect significantly different from zero at .05 level.  
\*\*\* Estimated effect significantly different from zero at .01 level.

For the nonelderly, there were no other significant differences in nonwaiver costs. Therefore, the treatment-control difference in total Medicaid expenditures was similar to the treatment-control difference in waiver costs.

Finally, for Florida's nonelderly, there was a statistically significant treatment-control difference (-\$108) in Medicare nursing facility expenditures. The program had no other significant effects on spending on particular Medicare services or total Medicare services for the nonelderly, elderly, or full sample during the first year.

**Comparison of Year 2 with Year 1.** In Florida, the treatment-control difference in waiver expenditures, other (nonwaiver) expenditures, and total Medicaid expenditures was similar in both years (Table 6b). The findings for the second postenrollment year in Florida also were similar to those of the first postenrollment year in that the treatment-control difference in waiver expenditures was positive and statistically significant for the nonelderly, but not for the elderly.

### **Program Effects on Service Use**

Cash and Counseling's effects on Medicaid and Medicare service use were similar to its effects on expenditures.<sup>26</sup> In Arkansas, treatment group members were less likely than control group members (although not significantly so) to use any inpatient services, home health services, or nursing facility services during the first postenrollment year (Table 7a). During the second year, the treatment group was significantly less likely than the control group to use long-term care services. The most striking finding is that the treatment group was 40 percent less likely than the control group to have a nursing facility stay, with only 7.9 percent of treatment group members, compared to 13.5 percent of control group members, having any Medicaid

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<sup>26</sup> Medicaid and Medicare claims will not appear for those in managed care programs that use capitated payments. Therefore, the percentage of people using particular Medicaid and Medicare services will be slightly understated, because some people in Florida and New Jersey are in this type of managed care program.

TABLE 6b

EFFECT OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES IN FLORIDA, BY YEAR

Dependent Variable	Cohort of Early Enrollees							
	Year 1				Year 2			
	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value	Predicted Treatment Group Mean (Dollars)	Predicted Control Group Mean (Dollars)	Estimated Effect	p-value
<b>Total Waiver, Medicaid, and Medicare Expenditures</b>								
Total waiver	17,506	14,999	2,507***	0.000	18,354	15,978	2,375***	0.000
Nonwaiver	5,593	5,742	-149	0.686	6,041	5,698	343	0.482
Total Medicaid	23,099	20,741	2,358***	0.000	24,394	21,676	2,718***	0.000
Total Medicare	7,697	7,371	326	0.658	7,298	6,988	309	0.669
Total Medicaid plus Medicare	30,796	28,112	2,684***	0.004	31,691	28,664	3,027***	0.008
<b>Other Medicaid Expenditures, by Type of Service</b>								
Nursing facility	483	390	92	0.568	1,225	1,001	223	0.475
Home health	544	572	-28	0.811	380	260	121	0.550
Inpatient	680	880	-200	0.232	591	752	-161	0.274
Transportation	120	141	-21	0.455	109	106	3	0.894
Prescription drugs	2,334	2,183	151	0.261	2,467	2,232	235	0.140
Physician	330	424	-94	0.309	285	284	1	0.989
Case management	7	7	1	0.854	3	3	0	0.907
Hospice	54	56	-2	0.970	102	78	24	0.707
Capitation amount	605	640	-34	0.727	514	596	-81	0.405
Other	435	447	-12	0.853	365	386	-21	0.741
<b>Medicare</b>								
Nursing facility	466	443	24	0.850	620	631	-11	0.944
Home health	949	907	42	0.781	830	881	-51	0.725
Inpatient	2,956	2,961	-5	0.992	2,613	2,522	91	0.822
Physician	188	178	10	0.469	176	168	9	0.540
DME	780	769	10	0.931	826	706	120	0.337
Hospice	455	403	52	0.776	469	357	112	0.523
Other	1,903	1,710	193	0.292	1,763	1,722	40	0.827
<b>Sample Size</b>	<b>1,424</b>	<b>1,424</b>			<b>1,424</b>	<b>1,424</b>		



TABLE 6b (continued)

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Source: Medicaid and Medicare claims data.

Notes: Early enrollees enrolled in the demonstration before October 1, 2001. Means were predicted using ordinary least squares regression models.

DME = durable medical equipment.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.

TABLE 7a

## EFFECT OF CASH AND COUNSELING ON SELECTED MEASURES OF SERVICE USE IN ARKANSAS

	Cohort of Early Enrollees											
	Full Sample, First Year					Second Year						
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value
<b>Nursing Facility Measures</b>												
Any Medicaid Nursing Facility Expenditures (Percent) <sup>a</sup>	7.4	8.6	-1.2	0.333	6.2	7.9	-1.7	0.224	7.9	13.5	-5.6***	0.001
Any Medicare Nursing Facility Expenditures (Percent) <sup>a</sup>	9.6	10.9	-1.3	0.325	8.9	9.8	-0.9	0.582	8.9	10.2	-1.3**	0.042
Any Medicaid or Medicare Nursing Facility Expenditures (Percent) <sup>a</sup>	14.0	15.3	-1.4	0.373	13.3	13.9	-0.6	0.754	13.5	17.4	-3.9**	0.042
Medicaid or Medicare Nursing Facility Days (Percent) <sup>b</sup>	11.7	13.3	-1.6	0.309	11.1	12.5	-1.4	0.460	19.1	26.3	-7.3**	0.035
<b>Home Health Measures</b>												
Medicare Skilled Nurse Visits (Number) <sup>b</sup>	4.4	4.8	-0.3	0.537	5.0	5.7	-0.6	0.376	3.1	4.0	-0.9	0.108
Medicaid Home Health Therapy Visits (Number) <sup>b</sup>	0.2	0.2	0.1	0.366	0.1	0.1	0.0	0.852	0.1	0.2	-0.2**	0.013
Any Home Health Visit (Percent) <sup>a</sup>	18.0	18.2	-0.2	0.885	19.7	20.4	-0.7	0.726	12.9	14.9	-2.0	0.289

Table 7a (continued)

	Cohort of Early Enrollees																	
	Full Sample, First Year						First Year						Second Year					
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value						
<b>Inpatient Measures</b>																		
Any Emergency Room Visits <sup>a</sup>	17.4	19.6	-2.2	0.189	17.0	19.8	-2.7	0.186	17.5	16.2	1.2	0.543						
Inpatient Days (Number) <sup>b</sup>	9.1	9.7	-0.6	0.336	8.6	9.5	-0.9	0.202	7.3	7.8	-0.5	0.482						
Any Inpatient Admission (Percent) <sup>b</sup>	47.1	47.7	-0.6	0.784	46.8	48.3	-1.5	0.575	40.3	41.4	-1.0	0.691						
<b>Sample Size</b>	<b>2,008</b>				<b>1,312</b>				<b>1,312</b>									

Source: Medicaid and Medicare claims data for the period from December 1997 through April 2002.

<sup>a</sup>Means predicted using logit models.

<sup>b</sup>Means predicted using tobit models.

\*Significantly different from zero at the .10 level, two-tailed test.

\*\*Significantly different from zero at the .05 level, two-tailed test.

\*\*\*Significantly different from zero at the .01 level, two-tailed test.

nursing facility expenditures. Similarly, treatment group members spent an average of 19.1 days in nursing facilities, 7.3 fewer than control group members. Treatment group members also were less likely than control group members to have any (Medicaid or Medicare) nursing facility admission, and they had fewer home health therapy visits. These findings were consistent with the expenditure impacts, as treatment group members had lower expenditures than control group members on long-term care services, particularly during the second year.

In New Jersey, the program had few significant effects on service use, although the direction of the treatment-control differences mirrors the expenditure results. During year 1, treatment group members were slightly less likely than control group members to use home health services (13.5 versus 16.1 percent; Table 7b). They also had fewer home health skilled nursing visits. However, treatment group members were more likely to have any Medicare nursing facility services expenditures (7.4 versus 5.6 percent). Although the treatment group had significantly lower nursing facility expenditures than the control group in the first year, the treatment-control difference in Medicaid nursing facility service use was negative but statistically insignificant (3.7 versus 4.9 percent).

In Florida, the program also had little effect on service use. One exception was that, during the second year, the treatment group had significantly fewer home health skilled nursing visits than the control group (Table 7c). This finding is somewhat anomalous, as the program did not affect whether beneficiaries used any home health services. The program also had no effect on overall home health expenditures, and, among the elderly, the treatment group had significantly *higher* Medicaid home health expenditures (probably a result of a few outliers having far more aide services) than the control group.

TABLE 7b

## EFFECT OF CASH AND COUNSELING ON SELECTED MEASURES OF SERVICE USE IN NEW JERSEY

	Cohort of Early Enrollees											
	Full Sample				Year 1				Year 2			
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value
<b>Nursing Facility Measures</b>												
Any Medicaid Nursing Facility Expenditures (Percent) <sup>b</sup>	3.7	4.9	-1.2	0.196	4.0	5.0	-1.0	0.359	6.1	6.5	-0.4	0.763
Any Medicare Nursing Facility Expenditures (Percent) <sup>b</sup>	7.4	5.6	1.8*	0.100	7.5	4.8	2.6**	0.030	7.8	7.3	0.5	0.717
Any Medicaid or Medicare Nursing Facility Expenditures (Percent) <sup>a</sup>	8.6	8.4	0.1	0.925	8.9	8.1	0.8	0.550	10.0	10.3	-0.3	0.838
Medicaid or Medicare Nursing Facility Days (Percent) <sup>b</sup>	6.4	7.6	-1.2	0.350	6.7	7.3	-0.6	0.676	11.4	12.1	-0.7	0.735
<b>Home Health Measures</b>												
Medicaid Skilled Nurse Visits (Number) <sup>b</sup>	2.8	3.4	-0.6*	0.090	3.0	3.5	-0.5	0.205	2.9	2.9	0.0	0.949
Any Home Health Visit (Percent) <sup>a</sup>	13.5	16.1	-2.5*	0.081	13.6	15.8	-2.1	0.181	9.7	10.5	-0.8	0.584
<b>Inpatient Measures</b>												
Any Emergency Room Visits <sup>a</sup>	30.9	28.9	2.0	0.340	31.1	29.4	1.7	0.462	28.0	27.7	0.3	0.908
Inpatient Days (Number) <sup>b</sup>	11.4	10.2	1.3	0.116	11.5	10.5	1.0	0.285	9.2	8.7	0.5	0.569
Any Inpatient Admission (Percent) <sup>a</sup>	38.5	36.9	1.6	0.460	38.5	37.8	0.8	0.745	35.0	34.8	0.1	0.950
<b>Sample Size</b>	<b>1,730</b>				<b>1,447</b>				<b>1,447</b>			

TABLE 7b (*continued*)

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Source: Medicaid and Medicare claims data.

Notes: Early enrollees enrolled in the demonstration before January 1, 2002.

<sup>a</sup>Means predicted using logit models.

<sup>b</sup>Means predicted using tobit models.

\*Estimated effect significantly different from ZERO at .10 level.

\*\*Estimated effect significantly different from ZERO at .05 level.

\*\*\*Estimated effect significantly different from ZERO at .01 level.

TABLE 7c

## EFFECT OF CASH AND COUNSELING ON SELECTED MEASURES OF SERVICE USE IN FLORIDA

	Cohort of Early Enrollees											
	Full Sample				Year 1				Year 2			
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value
<b>Nursing Facility Measures</b>												
Any Medicaid Nursing Facility Expenditures (Percent) <sup>a</sup>	4.9	6.1	-1.3	0.221	4.4	5.2	-0.8	0.484	5.9	6.8	-0.9	0.478
Any Medicare Nursing Facility Expenditures (Percent) <sup>a</sup>	6.4	7.8	-1.4	0.224	5.7	6.3	-0.6	0.605	6.3	6.6	-0.3	0.801
Any Medicaid or Medicare Nursing Facility Expenditures (Percent) <sup>a</sup>	7.5	9.3	-1.8	0.154	7.0	8.0	-1.0	0.466	8.1	8.5	-0.5	0.733
Medicaid or Medicare Nursing Facility Days (Percent) <sup>b</sup>	5.8	7.6	-1.9	0.116	5.2	5.9	-0.7	0.574	10.9	11.2	-0.3	0.906
<b>Home Health Measures</b>												
Skilled Nurse Visits (Number) <sup>b</sup>	1.8	2.0	-0.3	0.550	2.0	2.3	-0.3	0.587	2.3	3.4	-1.1***	0.002
Any Home Health Visit (Percent) <sup>a</sup>	5.8	5.8	0.1	0.953	6.7	6.1	0.7	0.540	4.4	5.2	-0.8	0.479
<b>Inpatient Measures</b>												
Any Emergency Room Visits <sup>a</sup>	22.5	23.0	-0.5	0.782	20.3	19.4	0.9	0.642	19.8	18.0	1.9	0.338
Inpatient Days (Number) <sup>b</sup>	4.7	5.2	-0.6	0.177	4.6	4.8	-0.2	0.714	4.1	4.1	-0.0	0.933
Any Inpatient Admission (Percent) <sup>a</sup>	28.7	30.1	-1.4	0.468	27.0	26.7	0.3	0.878	24.6	24.3	0.3	0.898
<b>Sample Size</b>	<b>1,817</b>				<b>1,424</b>				<b>1,424</b>			

TABLE 7c (continued)

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Source: Medicaid and Medicare claims data.

Notes: Early enrollees enrolled in the demonstration before October 1, 2001.

<sup>a</sup>Means predicted using logit models.

<sup>b</sup>Means predicted using tobit models.

\*Estimated effect significantly different from ZERO at .01 level.

\*\*Estimated effect significantly different from ZERO at .05 level.

\*\*\*Estimated effect significantly different from ZERO at .10 level.



## **The Effect of Higher-than-Expected Costs on Care Quality**

As noted, the personal care or waiver cost observed for the treatment group was substantially higher than that for the control group. This raises the question of whether the higher satisfaction levels observed for the treatment group (Carlson et al. 2005) were due solely to their average allowance being greater than the cost of services incurred by the control group and not to the program being more flexible and offering greater freedom of choice. If this were true, states might be less interested in developing a consumer-directed program. Therefore, we conducted additional analyses that tested whether the program's effects on key quality indicators (satisfaction with overall care arrangements, satisfaction with life, and unmet need for personal care) changed after we controlled for whether consumers incurred monthly costs that were higher than expected according to the discounted baseline value of their monthly care plan.

In Arkansas and New Jersey, our results suggest that members of both the treatment and the control groups were more satisfied and had fewer unmet needs when they received higher-than-expected benefits, but accounting for that difference did not fully explain the observed treatment-control differences in satisfaction. The program's impacts on satisfaction and unmet needs were smaller after we controlled for the ratio of actual to expected costs, but they were still sizable and statistically significant. For example, for the elderly in Arkansas, the treatment group was 15 percentage points more likely to be very satisfied with their overall care arrangements when we did not control for any cost-ratio indicators (Table A.4). After we controlled for the ratio of actual to expected costs, the estimated treatment-control difference was eight percentage points. Similarly, for the New Jersey elderly, the program's impact on overall satisfaction was 19 percentage points before we controlled for cost ratios and 18 percentage points afterward. (Results were similar for the nonelderly.) In one instance, the program had an adverse impact when we controlled for the ratio of actual to expected costs. Among the elderly in Arkansas, the

program had no effect on people's unmet need for personal care before we controlled for cost ratios. However, after we controlled for the treatment group's higher-than-expected costs, the treatment group was significantly more likely than the control group to have an unmet need for personal care. In Florida, none of our cost ratio variables were statistically significant; therefore, including a measure of cost ratios in our regressions did not affect the program's impacts on quality.<sup>27</sup>

## **DISCUSSION**

The finding that Medicaid costs are higher under Cash and Counseling than they would have been under the traditional program may raise concerns for states that have tight budget constraints but wish to offer consumers the sizable benefits the program offers. In all three states, consumers benefited greatly from Cash and Counseling, as they were more likely to receive paid care, had greater satisfaction with the care they received, and reported fewer unmet needs than those in the traditional program (Carlson et al. 2005). Similarly, the primary unpaid caregivers benefited from consumer direction, experiencing lower physical and emotional strain under Cash and Counseling than under the traditional program (Foster et al. 2005c). Costs per consumer under Cash and Counseling exceeded those of the traditional program during the first two postenrollment years, for varying reasons across states (as summarized below). A main reason was that Cash and Counseling increased access to paid care. During and after the study period, however, the states implemented changes that substantially reduce cost per recipient under Cash and Counseling. Our analysis suggests that, by adapting lessons the demonstration states learned, Cash and Counseling programs can be implemented in ways that preserve the

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<sup>27</sup> We tested both categorical and continuous versions of the cost-ratio variable.

substantial benefits while keeping monthly costs per recipient and, perhaps, total Medicaid costs to approximately what they would have been under the traditional program.

### **State-by-State Summary**

In **Arkansas**, PCS expenditures were about twice as high for the treatment group as for the control group during the first year postenrollment, primarily because the control group received less care than was authorized. Nearly one-fourth of control group members did not receive any paid PCS. Those who did received only 68 percent of the hours of care they were entitled to, rather than the 86 percent they were expected to receive (based on historical data). A secondary reason for this difference was that treatment group members were more likely than control group members to have reassessments that authorized increases in the hours of care and, therefore, increased allowances. Nonetheless, the average total personal care expenditures (allowance costs plus fiscal agent/counseling costs) among allowance recipients over the first postenrollment year was slightly *less* than the cost that agencies would have incurred, on average, in supplying the expected number of baseline care plan hours. (The increased allowances were offset by decreased expenditures for fiscal agent/counseling costs.)

The treatment group's large increase in PCS costs was partly offset by savings in its expenditures on nursing facility, home health, and other Medicaid services. Thus, the treatment group's total Medicaid costs were only about 13 percent (or \$1,100) higher than those of the control group during the first postenrollment year. (The pattern of expenditure impacts was similar for the elderly and nonelderly, although the increase in PCS expenditures and the offsetting decrease in non-PCS expenditures were both greater for the nonelderly.)

Because the savings in other Medicaid services (particularly nursing facility, home health, and other home care waiver services) grew between the first and second year, and the gap in PCS costs shrank, the increase in total Medicaid costs during the second year fell to five percent, a

statistically insignificant difference. Thus, over the whole two-year period, Medicaid costs were about nine percent higher for the treatment group.

In **New Jersey**, PCS costs for the treatment group were 16 percent higher than those for the control group during the first year, and this difference grew. The treatment-control difference in personal care costs was due largely to the fact that, for both age groups, the treatment group was more likely to receive at least some PCS. For the nonelderly, however, average costs were higher for the treatment group, even among PCS recipients. This appears to be largely due to the fact that control group recipients' average monthly costs for personal care were about 10 percent lower than expected until the second year postenrollment. Allowance recipients also may have received larger increases in their care plans than control group members did at the time of reassessment, or control group members may have had such increases but did not receive the additional care. During the study period, New Jersey had labor shortages that could have prevented control group members from receiving all of their authorized care. In addition, agencies may have been reluctant to increase beneficiaries' care plan hours because they knew they did not have enough staff to provide extra care. These factors would have affected the nonelderly sample more than the elderly one if the nonelderly were more aggressive about lobbying for more care plan hours.

Savings in other Medicaid services (transportation, home health, and nursing facility) offset about half the treatment group's higher PCS costs and rendered statistically insignificant the treatment-control difference in total Medicaid costs in the first year. While the treatment-control difference in PCS grew, however, the estimated savings in other Medicaid services declined. Therefore, the programs' impact on total Medicaid costs was sizable in year 2. The source of the higher year 2 Medicaid costs differed by age group. Costs for the elderly were higher solely due to the treatment-control difference in the percent who received any care, while costs for the

nonelderly were higher due to the treatment-control difference both in the percent who received any care and in the amount of care recipients received.

In **Florida**, Cash and Counseling's effects were markedly different for the two age groups we examined. For the nonelderly, the treatment group's waiver costs were about \$3,700 (or 20 percent) higher than the control group's, primarily because many treatment group members received allowances that were substantially greater than expected according to their baseline care plans. The time pattern of ratios of actual to expected costs over time suggests that allowance recipients obtained increases in their care plans when they developed spending plans. This pattern was similar to that observed for children in Florida, who are part of the same Developmental Disabilities waiver program as most of the nonelderly adults (Dale et al. 2004b). Because there were no offsetting savings in other Medicaid costs, there was a sizable treatment-control difference in total Medicaid costs. While treatment group costs for Medicare skilled nursing facility services were significantly lower than those of the control group, the program did not have a significant effect on total Medicare costs.

For the elderly, total waiver costs were similar for the treatment and control groups in both postenrollment years. Both groups had similar waiver costs in year 2, even though a somewhat higher percentage of elderly treatment group members (81 percent) than control group members (76 percent) actually received waiver services. The program had no effect on total Medicaid costs or on total Medicare costs. Given that less than 40 percent of elderly Florida treatment group members ever received an allowance, the lack of significant differences is not surprising.

## **Lessons Learned**

**A key benefit of the program—increasing access to paid care—may lead to increased costs.** Under Cash and Counseling, treatment group members were more likely than control group members to receive paid assistance. The program's impact on whether beneficiaries

received paid care was modest in Florida (and pertained only to the elderly and only to the second year), but it was sizable in New Jersey and particularly striking in Arkansas. Apparently, Cash and Counseling increased beneficiaries' access to paid care by allowing them to hire family and friends in times of labor shortages. This increased access to care was partly responsible for the higher costs of the treatment group.

The increased access to paid care did not result in consumers receiving more *total* hours of care. Family and friends might have been paid for care that they otherwise would have provided free, as the total number of hours of care that beneficiaries received under Cash and Counseling were similar to (or lower than) those the control group received (Carlson et al. 2005). However, beneficiaries reported fewer unmet needs and were more satisfied with the care they received under Cash and Counseling, suggesting that paid care may have been provided more efficiently and was of a higher quality than the care provided under the traditional program.

The fact that so many control group members did not receive any paid assistance at all during the whole postenrollment period in Arkansas and during the second year in Florida and New Jersey might be troubling to policymakers, especially since some have expressed concern about the adequacy of the care received under the traditional program (U.S. General Accounting Office 2003). These enrollees may not have received paid assistance because of the agency worker shortages that were prevalent nationwide and particularly severe in Arkansas during the study period. If this is the case, then Cash and Counseling helped obtain paid assistance for consumers who would have been unable to do so under the traditional program. Thus, the higher costs attributable to increased access might represent a quality improvement. Indeed, increasing access to care was a goal in Arkansas, especially since 40 percent of personal care recipients lived in rural areas.

In Arkansas, it also is possible that some control group members enrolled in the demonstration because they were attracted to the flexibility and control of the monthly allowance and would not have accepted agency care. Indeed, the high percentage of newly enrolled control group members who did not receive any PCS (66 percent) suggests that some of the difference was due to people enrolling in the demonstration who were interested in the flexibility and control that consumer direction offered but not interested in the traditional program (Dale et al. 2004a). If so, we might infer that some eligible beneficiaries considered the traditional program unacceptable. However, it might also be that Cash and Counseling increased state Medicaid expenditures by providing an allowance to people who (although entitled to services) would not have sought agency care. In addition, the greater dropoff in control group participation in the second year in the traditional program in Florida and New Jersey suggests that the consumers studied considered Cash and Counseling more appealing than traditional services. On the other hand, during the demonstration, the ratio of new to continuing beneficiaries never exceeded historical levels, meaning that Cash and Counseling did not trigger a large influx of new enrollees. Whatever the reason for the control group's lack of paid care, Cash and Counseling increased the likelihood that beneficiaries would obtain the services they need and were authorized to receive.

**Even among recipients, costs generally were higher for the treatment group.**<sup>28</sup> Costs were higher than expected for recipients, partly because of underservice in the control group attributable to severe labor shortages during the study period. This was particularly true in Arkansas, where personal care recipients in the control group incurred only 68 percent of the

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<sup>28</sup> As noted, if there were offsetting savings in core services (home health, targeted case management, hospice, durable medical equipment, and transportation), the program could meet CMS's budget neutrality requirement even if costs for the cashed-out service were higher under Cash and Counseling than under the traditional program.

value of their care plans, rather than the 86 percent they were expected to receive. Similarly, in New Jersey, nonelderly consumers in the control group did not receive all their authorized care.

A second reason for the treatment group's higher costs per recipient was that allowance recipients seemed to be more likely than those in the traditional program to receive increases in their care plans at the time of reassessment. Why might allowance recipients receive more generous reassessments than those in the traditional program? In Arkansas and New Jersey, agencies might not have wanted to increase care plan hours for control group members while there was a labor shortage. In contrast, because treatment group members could hire friends and relatives, labor shortages were not a factor during the counselors' assessments (in Arkansas) and the Medicaid nurses' assessments (in New Jersey). In addition, in Arkansas, counselors might have advocated for consumers and sought to increase their care plans. In Florida, counselors had only limited training and often were not sure of program rules.<sup>29</sup> In an effort to be flexible, counselors may have authorized requests that would increase the care plan but that support coordinators would not have authorized under the traditional program.

**Cash and Counseling did reduce costs for other Medicaid services in two states, which at least partly offset the program's higher costs for the costed-out service.** Cash and Counseling can substitute for other Medicaid services, but it did not do so consistently across states and time periods. The results were most promising in Arkansas, where savings in nursing facility and other long-term care services were enough to offset 20 percent of the treatment group's higher personal care costs during the first postenrollment year and three-fourths of the treatment group's higher personal care costs during the second year. Likewise, savings in nursing facility and home health services in New Jersey were enough to offset half the treatment-

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<sup>29</sup> Personal conversations with Florida program officials.



control difference in personal care costs in the first postenrollment year. These savings did not persist in the second postenrollment year, however.

**The program did not adversely affect the need for acute care.** One might be concerned that consumers would experience adverse health outcomes under Cash and Counseling, receiving greater need for acute care services if workers neglected consumers or provided inadequate care. However, this did not happen. The program did not significantly affect Medicare expenditures or Medicaid expenditures for acute health care (that is, for services unrelated to long-term care). Moreover, self-reported data indicated that treatment group members were less likely than control group members to fall, develop contractures, have respiratory infections, experience shortness of breath, or have urinary infections (Carlson et al. 2005).

### **Policy Implications**

In all three states, Cash and Counseling increased both the likelihood that beneficiaries would receive paid services and the quality of care received (Carlson et al. 2005). In spite of its sizable benefits, the higher initial costs of consumer direction might discourage some states from adopting a similar program. However, note that this evaluation was conducted over a two-year follow-up period that started immediately after enrollment began, before the states were able to identify and remedy any problems that occurred in implementing this innovative program.

Each state has different goals and constraints, and these differences should guide their decisions about the need to control program costs and the best method for doing so. Arkansas sought to increase access. Therefore, while it was important in that state for personal care costs *per recipient* to not be higher for the treatment group, higher *total* personal care costs were expected if the state achieved its goal of increased access to paid care. Florida and New Jersey expected total personal care costs to be similar for the treatment and control groups because their

programs were limited to those already receiving, or scheduled to receive, PCS. The size of the allowance and what it can be used for could also affect states' approaches to controlling costs.

States also should realize that the program's cost effects may differ substantially for younger and older adults, especially if the two groups have very different characteristics (besides age). For example, nearly 90 percent of Florida's younger adults are enrolled in the state's Developmental Disabilities waiver program. These adults have different needs and living arrangements than frail older adults in Florida's program, many of whom need personal assistance primarily because of physical (rather than cognitive) difficulties. These differences can lead to differences in how aggressively the consumer (or the consumer's family) seeks increases in allowance amounts and differences in the amount of additional enrollment that the program might attract.

States interested in reaping the sizable benefits of Cash and Counseling, but concerned about its costs, should consider the following issues:

**Limited Enrollment.** States might consider limiting the program to (or only advertising it to) those receiving services in the traditional program, making exceptions for consumers who have tried and failed to obtain services or who live in areas that lack service providers. The major source of higher costs in Arkansas and New Jersey was attributable to the increased proportion of consumers receiving any services. If this increase is due in part to some consumers enrolling in the demonstration who otherwise would never have sought care under the traditional program, states might logically try to control these costs by limiting enrollment in consumer-directed care to consumers who had been receiving services under the traditional program for some time.

Limiting enrollment could be counterproductive, however. If enrollment were limited, states would not be able to expand access to paid care in rural areas or other areas where

agencies cannot find enough workers. (Even in cities, a tight labor market may make it difficult for agencies to hire enough workers at wage rates compatible with the Medicaid payment for such services.) Furthermore, some consumers may not be willing to accept agency services because of problems encountered in the past with agency workers (such as unreliability, theft, or abuse). Thus, limiting enrollment to those who had already been receiving agency services would unfairly penalize some eligible consumers and undermine a primary objective some states have for introducing consumer direction: improving access to care. The finding that the largest reductions in Medicaid nursing home and other long-term care costs were in states and age groups for which the increases in access to care were largest validates the wisdom of this objective. Notably, during the second year, Arkansas appears to have been able to offset nearly all of the increase in PCS costs (including those attributable to increased enrollment) through savings in Medicaid long-term care services—a substitution that appeals to states, as well as to most consumers and their families.

**Recoupment.** States considering consumer-directed care may need to adopt procedures to recover funds the consumer did not need. Each of the three demonstration states eventually developed procedures for recouping funds, although their rules varied. For example, in Arkansas, the state began recouping funds (after the study period ended) for consumers who had balances of more than 150 percent of their monthly allowance and had not specified a purchase for which they were saving. Recoupment was most vigorous in New Jersey, where the state recovered more than \$3 million in unspent allowances not designated for a particular purpose. Without recoupment, the cost difference reported in this study would have been substantially greater. Such procedures can be implemented fairly if counselors give consumers plenty of warning to help them avoid losing funds they are saving for a legitimate need.

**Reassessments.** Cash and Counseling programs may need to find a way to make revisions to care plans to ensure that allowances are no more likely to be increased for consumers if they participate in the program than if they receive agency care. In both Arkansas and Florida, some counselors appear to have increased the hours in consumer care plans more than agencies would have. Therefore, it might make sense for reassessments to be conducted by independent parties, rather than by counselors or other people who might be inclined to advocate for consumers.

Comprehensive training is needed to ensure that assessors fully understand program rules and are not overly permissive in granting increases to care plans. Ideally, states would adopt standardized assessment procedures that are blind to whether consumers direct their own care. For example, Florida's Developmental Disabilities program adopted a new assessment form—the Individual Cost Guideline—which standardized the method for determining the costs of services that all beneficiaries need (whether they receive care under Cash and Counseling or the traditional waiver program). All support coordinators and CDC consultants received comprehensive training on this approach as it was being implemented. Such changes might prevent beneficiaries from receiving sizable increases in their care plans during reassessments, as many people in Florida's Developmental Disabilities program did.

**Payments to Counseling and Fiscal Agencies.** While consumer-directed programs do not necessarily provide counseling and fiscal agent services, these features were key components of the Cash and Counseling model. Payment for these services needs to be carefully structured so that it is tied to the level of effort and gives the agency an incentive for developing the spending plan. For example, Arkansas discovered that its original payment structure for counseling and fiscal services was not ideal. When the demonstration began, Arkansas paid the counseling/fiscal agencies a high monthly payment (\$115 per month) starting when the consumer enrolled in the program, even though the consumer was not yet using bookkeeping or counseling

services regularly. Moreover, the state incurred the cost of traditional services *and* the cost of this monthly fee until the spending plan was developed and the first allowance was received. Partway through the demonstration, Arkansas changed its payment structure to more accurately reflect the level of effort that counseling/fiscal agencies incurred. It made a one-time payment after the spending plan was developed, then paid a fee of \$75 per month once the consumer started the allowance. This payment structure gave the counseling/fiscal agencies an incentive to help the consumer complete the spending plan and reduced Arkansas's costs for fiscal agent and counseling services.

**Discounting the Allowance.** States should consider adopting a discount factor for the allowance, as Arkansas and Florida did, to account for the fact that, on average, consumers receive less than the full number of hours of care specified in their care plan. New Jersey did not discount allowances, because it found that personal care recipients historically received the full value of their care plan. However, personal care recipients in the control group did not receive all the care they were entitled to. In fact, nonelderly control group members received only 90 percent of their care plans during the first year of the study period. While they incurred greater costs during the second year, these greater costs were due partly to increases in agency worker's wage rates, rather than to hours of care. In retrospect, if New Jersey had used a discount factor, treatment group costs there (especially for the nonelderly) would have been much closer to control group costs.

The discount factor was even insufficient in Arkansas (where allowances were set to equal an average of 86 percent of the care plan value) to account for the gap between actual hours and care plan hours for the control group during the study period. Arkansas kept treatment group costs per recipient month on a par with control group costs by reducing the payment it made to counselors and through savings on other long-term care services. Another way to lower costs

would have been to reduce the value of the care plan further; however, states may wish to investigate why beneficiaries in the traditional program do not receive all the services authorized for them before deciding to implement a discount factor. Few policymakers would want to hold costs down by depriving beneficiaries of services that assessment staff authorize as necessary. If care plans are routinely set at overly generous amounts, or if consumers have other reasons for not getting all the services authorized, discounting the allowance based on historical data might be appropriate. Even here, however, discounting allowances downward for all consumers to reflect the average penalizes those who truly need all the services authorized in their care plan. Nonetheless, despite the discounting of their allowance, Arkansas and Florida consumers were much more satisfied under Cash and Counseling than under the traditional program.

Whatever cost-cutting measures are introduced, policymakers need to monitor whether such measures reduce the quality of care received. Furthermore, states should weigh the potential for reducing nursing facility costs against the higher costs they may incur for personal care. If the effects on nursing home and long-term care costs such as those observed in Arkansas and New Jersey can be replicated elsewhere (and perhaps increased), while keeping cost per month of service close to the levels of the traditional program, consumers, their families, and the state will all benefit.

### **Assessing the Trade-Offs**

Under Cash and Counseling, care can be provided for a cost less than or equal to what the cost would be for agencies to provide authorized care to eligible beneficiaries. The main reason that costs were higher under Cash and Counseling was that the traditional program provided far less care than was authorized. States may decide that it is inappropriate to compare costs under Cash and Counseling to costs under a system that did not provide care to many eligible beneficiaries and that provided less care than was authorized to those it did serve. Moreover,

states need to consider whether, according to Medicaid statutes, failing to provide services authorized in beneficiaries' care plans is even legal. For these reasons, states may decide that they are willing to incur slightly higher total Medicaid costs to reap sizable gains in access to care and in consumer and caregiver well-being. Alternatively, they may feel that they can draw from the lessons learned in Arkansas, Florida, and New Jersey to find ways to keep costs at the level incurred under the traditional system. Modest percentages (about 8 to 20 percent) of eligible consumers participated in Cash and Counseling (even though states undertook considerable outreach efforts). Therefore, the impact on a state's total Medicaid costs also is likely to be modest, even if no changes were implemented to control personal care costs under Cash and Counseling.

### **Limitations**

Because the randomized evaluation design ensures that the impact estimates are valid, the study limitations described here do not cast doubt on the basic findings. Because our study pertained to one model of consumer direction, our findings may not apply to all programs featuring consumer-directed care. Impacts may differ for programs with other features (for example, those whose PCS benefits are more, or less, generous). Estimated program effects also may depend, in part, on the extent to which the supply of personal care workers in an area can meet the demand for services. For example, while there still is a nationwide shortage of home care workers, the shortage was particularly severe during the 1999-2002 study period. In addition, the results are limited to a two-year follow-up period. Over time, differences in costs might increase (as they did in New Jersey) or decrease (as they did in Arkansas). Nor do the results reflect the recent changes states made as they learned about program costs and procedures.

## **Related Research**

This report addresses only one aspect of consumer-directed care. As noted, other Mathematica Policy Research, Inc. reports have examined the effect of Cash and Counseling on the use of personal assistance and the quality of care received. We also are estimating program effects on informal caregivers, examining the experiences of workers hired by consumers, and describing implementation issues important to states. Finally, a companion report examines the impacts of Cash and Counseling on Medicaid and Medicare expenditures for children in Florida. In making decisions about consumer direction, states interested in Cash and Counseling may wish to consider findings from these other reports, as well as from the cost results.



## COMPANION REPORTS

### **Impacts on Quality of Care and Use of Personal Care**

*These reports compare treatment and control group members, using data from telephone interviews describing, among other outcomes measured nine months after random assignment: satisfaction, unmet need, disability-related health, and hours and types of personal care received.*

Carlson, Barbara, Barbara Phillips, Stacy Dale, Leslie Foster, Randy Brown, and Jennifer Schore. “The Effect of Cash and Counseling on Service Use and Care Quality in Three States.” Princeton, NJ: Mathematica Policy Research, Inc., 2005.

Foster, Leslie, Randall Brown, Barbara Phillips, Jennifer Schore, and Barbara Carlson. “Does Consumer Direction Affect the Quality of Medicaid Personal Assistance in Arkansas?” Princeton, NJ: Mathematica Policy Research, Inc., March 2003.

*Also see published version of this report:* Foster et al. “Improving the Quality of Medicaid Personal Care Through Consumer Direction.” *Health Affairs* Web exclusive W3, March 26, 2003, pp. 162–175.

Dale, Stacy, Randall Brown, Barbara Phillips, Jennifer Schore, and Barbara Carlson. “The Effect of Consumer Direction on Personal Assistance Received in Arkansas.” Princeton, NJ: Mathematica Policy Research, Inc., April 2003.

*Also see published version of this report:* Dale et al. “The Effects of Cash and Counseling on Personal Care Services and Medicaid Costs in Arkansas.” *Health Affairs* Web exclusive W3, November 19, 2003, pp. 566–575.

Foster, Leslie, Stacy Dale, Randall Brown, Barbara Phillips, Jennifer Schore, and Barbara Lepidus Carlson. “Do Consumer-Directed Supportive Services Work for Children with Developmental Disabilities?” Princeton, NJ: Mathematica Policy Research, September 2004.

### **Impacts on the Cost of Medicaid and Medicare Services**

*The current report is the third in a set of three. These reports compare treatment and control group members, using Medicaid and Medicare data describing the cost of personal care and other covered services measured during the year after random assignment, and also present information about Cash and Counseling program costs. Reports on costs in the Arkansas program and on the Florida program for children are listed below.*

Dale, Stacy, Randall Brown, and Barbara Phillips. “Does Arkansas’ Cash and Counseling Program Affect Service Use and Public Costs?” Princeton, NJ: Mathematica Policy Research, Inc., July 2004.

Dale, Stacy, Randall Brown, and Barbara Phillips. “Medicaid Costs Under Consumer Direction for Children with Developmental Disabilities.” Princeton, NJ: Mathematica Policy Research, Inc., December 2004.

### **Impacts on Informal Caregiving**

*These reports compare the experiences of primary informal caregivers of treatment and control group members (identified at the time of random assignment), using data from telephone interviews describing caregiver burden and well-being nine months after random assignment. The Arkansas report and a report on caregivers for children participating in the Florida program are listed below. A report on caregivers for adults from all three programs is forthcoming.*

Foster, Leslie, Randall Brown, Barbara Phillips, and Barbara Carlson. “Easing the Burden of Caregiving: The Impact of Consumer Direction on Primary Informal Caregivers in Arkansas.” Princeton, NJ: Mathematica Policy Research, Inc., August 2003.

Foster, Leslie, Randall Brown, Barbara Phillips, and Barbara Carlson. “The Effects of Cash and Counseling on the Primary Informal Caregivers of Children with Developmental Disabilities.” Princeton, NJ: Mathematica Policy Research, Inc., April 2005.

### **Experiences of Paid Workers**

*These reports compare the experiences of primary paid workers of treatment and control group members (identified nine months after random assignment), using data from telephone interviews describing working conditions, burden, and well-being 10 months after random assignment. The Arkansas report is listed below; a report on workers for the Florida and New Jersey programs is forthcoming.*

Dale, Stacy, Randall Brown, Barbara Phillips, and Barbara Carlson. “The Experiences of Workers Hired Under Consumer Direction in Arkansas.” Princeton, NJ: Mathematica Policy Research, Inc., June 2003.

### **Program Implementation**

*These reports describe program goals, features, and procedures in detail based on in-person interviews with program staff.*

Phillips, Barbara, and Barbara Schneider. “Moving to Independent Choices: The Implementation of the Cash and Counseling Demonstration in Arkansas.” Princeton, NJ: Mathematica Policy Research, Inc., May 2002.

Phillips, Barbara, and Barbara Schneider. “Enabling Personal Preference: The Implementation of the Cash and Counseling Demonstration in New Jersey.” Princeton, NJ: Mathematica Policy Research, Inc., March 2003.

Phillips, Barbara, and Barbara Schneider. "Changing to Consumer-Directed Care: The Implementation of the Cash and Counseling Demonstration in Florida." Princeton, NJ: Mathematica Policy Research, Inc., July 2004.

Phillips, Barbara, Kevin Mahoney, Lori Simon-Rusinowitz, Jennifer Schore, Sandra Barrett, William Ditto, Tom Reimers, and Pamela Doty. "Lessons from the Implementation of Cash and Counseling in Arkansas, Florida, and New Jersey." Princeton, NJ: Mathematica Policy Research, Inc., June 2003.

Schore, Jennifer, and Barbara Phillips. "Consumer and Counselor Experiences in the Arkansas Independent Choices Program." Princeton, NJ: Mathematica Policy Research, Inc., January 2004.

Foster, Leslie, Barbara Phillips, and Jennifer Schore. "Consumer and Consultant Experiences in the Florida Consumer Directed Care Program." Draft report. Princeton, NJ: Mathematica Policy Research, Inc., November 2004.

Foster, Leslie, Barbara Phillips, and Jennifer Schore. "Consumer and Consultant Experiences in the New Jersey Personal Preference Program." Draft report. Princeton, NJ: Mathematica Policy Research, Inc., December 2004.

### **Program Demand and Participation**

*This report will describe changes in enrollment in demonstration feeder programs before and after demonstration implementation, as well as compare program participants with eligible nonparticipants. The forthcoming report will include all three state programs.*



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**APPENDIX A**  
**ADDITIONAL TABLES**





TABLE A.1a

## ARKANSAS BASELINE MEANS FOR REGRESSION CONTROL VARIABLES

Characteristic	Treatment Group	Control Group
Demographic Characteristics		
Age at Baseline, in Years (Percent)		
18 to 39	7.2	8.1
40 to 64	20.6	19.5
65 to 79	36.4	36.6
80 or older	35.9	35.9
Female (Percent)	77.7	77.6
Race/Ethnicity (Percent)		
White	61.2	59.6
Black	32.9	33.8
Other	5.9	6.6
Hispanic	1.3	1.1
Enrollment in Public Programs (Number)		
Months in Medicaid	11.3	11.4
Months in Medicare	9.6	9.8
Enrolled in Alternatives or ElderChoices Waiver Program (Percent)	0.43	0.43
CDPS Diagnosis Category (Percent) <sup>a</sup>		
Cancer	12.6	11.8
Cardiovascular (Low Cost)	22.2	21.6
Cardiovascular (Medium or High Cost)	35.3	33.8
Cerebrovascular	26.2	29.5
Central Nervous System (Medium or High Cost)	3	7.4
Central Nervous System (Low Cost)	35.0	33.3
Diabetes (Medium or High Cost)	17.5	16.4
Diabetes (Low Cost)	12.9	13.5
Eye (Percent)	26.2	23.9
Gastrointestinal (Medium or High Cost)	4.9	5.5
Gastrointestinal (Low Cost)	23.6	21.9
Hematological	6.9	5.1*
Infectious	4.8	6.1
Metabolic (Medium or High Cost)	4.3	6.6**
Metabolic (Very Low Cost)	6.2	7.3
Psychiatric	1.7	2.7
Pulmonary	9.1	8.0
Renal (Very High Cost)	5.4	4.2
Renal (Medium Cost)	33.1	34.2
Renal (Low Cost)	4.2	5.9*
Skeletal	15.5	15.9

TABLE A.1a (continued)

Characteristic	Treatment Group	Control Group
Skin (High Cost)	6.6	7.4
Skin (Low or Very Low Cost)	10.4	11.4
Medicaid Expenditures in the 12 Months Preceding Baseline (Dollars)		
Medicaid PCS	2,199	2,226
ElderChoices or Alternatives Expenditures	1,446	1,534
Nursing Facility Services	126	170
Inpatient Hospital Services	877	687
Home Health Services	373	373
DME	331	328
Selected Other Services	1,250	1,290
Self-Reported Health Status, Unmet Needs, Health and Functioning (Percent)		
Said health was fair at baseline	30.9	31.0
Said health was poor at baseline	47.5	50.8
Said health was worse at baseline than in preceding year	54.0	53.6
Needs help getting in and out of bed	61.9	65.2
Had unmet personal care need	65.1	66.7
Weekly Hours in Care Plan at Baseline (Number)	10.6	10.3
<b>Sample Size</b>	<b>1,004</b>	<b>1,004</b>

Source: Medicare and Medicaid claims, December 1997 to April 2000; Medicare and Medicaid enrollment files; MPR's baseline evaluation survey, conducted between December 1998 and April 2001.

<sup>a</sup>The CDPS was used to classify people into major diagnostic categories; many of the diagnostic categories are divided into subcategories (such as high cost, medium cost, low cost) according to the level of Medicaid expenditures that would be expected for a particular diagnosis. A diagnosis is only captured if there is a Medicaid or Medicare claim related to the diagnosis in the year before enrollment in the demonstration. See Kronick et al. (2000) for a description of the CDPS.

CDPS = Chronic Illness and Disability Payment System; DME = durable medical equipment; PCS = personal care services.

\*Treatment group mean significantly different from the control group mean at the .10 level, two-tailed test.

\*\*Treatment group mean significantly different from the control group mean at the .05 level, two-tailed test.

TABLE A.1b

## NEW JERSEY BASELINE MEANS FOR REGRESSION CONTROL VARIABLES

Variable	Treatment	Control
Age in Years (Percent)		
18 to 39	15.3	16.3
40 to 64	31.4	31.0
65 to 79	32.3	30.0
80 or older	21.0	22.7
Female (Percent)	74.0	71.6
Race (Percent)		
Other	9.1	8.0
Black	38.1	36.4
White	52.8	55.6
Hispanic (Percent)	35.5	36.1
Medicaid Expenditures in Year Before Baseline (Dollars)		
Total Medicaid expenditures	20,446	20,716
Medicaid Expenditures for Selected Services in Year Before Baseline (Dollars)		
Inpatient expenditures	2,941	2,816
Home health	1,073	1,177
Personal care	8,096	8,695*
Other selected services	2,861	2,275**
Months on Medicaid/Medicare Before to Enrollment		
Months on Medicaid	11.8	11.8
Months on Medicare	7.9	8.0
Managed Care at Baseline (Percent)		
Any Medicaid HMO	10.2	11.9
Any Medicare HMO	2.2	0.9**
Predicted Medical Costs (Percent) <sup>a</sup>		
Very high predicted costs	24.0	26.1
High predicted costs	25.4	24.7
Medium predicted costs	26.4	24.2
Low predicted costs	24.2	25.0
Health Status, Functional Status, and Need for Personal Care at Baseline (Percent)		
Said health was fair	35.2	38.0
Said health was poor	44.6	40.3*
Health expected to be worse next year	48.6	45.2
Unmet need for personal care	74.2	73.9
Not independent in transferring	66.8	65.9
Monthly Prospective Allowance Amount (Dollars)	1,052	1,106**
Rural (Percent)	10.5	9.7
<b>Sample Size</b>	<b>861</b>	<b>869</b>

TABLE A.1b (continued)

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Source: Medicaid and Medicare claims data and MPR's baseline survey.

<sup>a</sup>Predicted costs were calculated from CDPS software based on the sample member's diagnoses according to Medicaid and Medicare claims data in the year before enrollment in the demonstration.

CDPS = Chronic Illness and Disability Payment System; HMO = health maintenance organization.

\*Treatment group mean different from control group mean at .10 level.

\*\*Treatment group mean different from control group mean at .05 level.

TABLE A.1c

## FLORIDA BASELINE MEANS AND REGRESSION CONTROL VARIABLES

	Treatment	Control
Age in Years (Percent)		
18 to 39	37.9	38.0
40 to 59	12.3	12.3
60 to 79	28.3	24.3*
80 or older	21.6	25.3*
Female (Percent)	61.2	63.0
Black (Percent)	23.2	22.3
Hispanic (Percent)	26.0	29.7*
Medicaid Expenditures in Year Before Baseline (Dollars)		
Total Medicaid expenditures	16,232	15,878
Medicaid Expenditures for Selected Services in Year Before Baseline (Dollars)		
Inpatient expenditures	516	826*
Home health	731	537
Waiver services	11,161	10,633
Other selected services	461	412
Months on Medicaid/Medicare Before Enrollment		
Months on Medicaid	11.8	11.8
Months on Medicare	8.1	7.7
Managed Care at Baseline (Percent)		
Any Medicaid or Medicare HMO	48.0	51.7
Any capitated Medicaid HMO	14.6	15.3
Any Medicaid primary care case management	26.0	29.1
Any Medicare HMO	14.4	14.7
Predicted Medical Costs (Percent) <sup>a</sup>		
Very high predicted costs	24.0	26.1
High predicted costs	25.5	24.6
Medium predicted costs	30.9	30.6
Low predicted costs	19.6	18.7
Health Status, Functional Status, and Need for Personal Care at Baseline (Percent)		
Said health was fair	30.5	31.7
Said health was poor	26.4	26.2
Health expected to be worse next year	33.0	33.5
Received personal care in prior year	77.5	77.9
Unmet need for personal care	59.1	58.7
Not independent in transferring	56.5	60.4*
Monthly Prospective Allowance Amount (Dollars)	1,232	1,199
Rural (Percent)	13.2	11.9
<b>Sample Size</b>	<b>909</b>	<b>908</b>

TABLE A.1c (continued)

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Source: Medicaid and Medicare claims data and MPR's baseline survey.

<sup>a</sup>Predicted costs were calculated from CDPS software based on the sample member's diagnoses according to Medicaid and Medicare claims data in the year before enrollment in the demonstration.

CDPS = Chronic Illness and Disability Payment System; HMO = health maintenance organization.

\*Treatment group mean different from control group mean at .10 level.

TABLE A.2a  
EFFECT OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES  
IN ARKANSAS, BY YEAR

Dependent Variable	Year 1			Year 2			
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value
<b>Nonelderly</b>							
Personal care expenditures	5,736	2,545	3,191	5,030	2,009	3,021	0.000***
Nonpersonal care expenditures	8,373	10,720	-2,347	8,998	11,460	-2,462	0.025**
Total Medicaid expenditures	14,109	13,265	844	14,027	13,469	559	0.425
<b>Sample Size</b>	<b>385</b>			<b>385</b>			
<b>Elderly</b>							
Personal care expenditures	4,524	2,307	2,216	3,396	1,734	1,661	0.000***
Nonpersonal care expenditures	6,729	7,283	-554	6,425	7,704	-1,279	0.062*
Total Medicaid expenditures	11,252	9,590	1,662	9,820	9,438	382	0.000***
<b>Sample Size</b>	<b>929</b>			<b>929</b>			

Source: Medicaid claims data.

Notes: Early enrollees enrolled in the demonstration before May 1, 2000. Means were predicted using ordinary least squares regression models.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.

TABLE A.2b

EFFECT OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID AND MEDICARE SERVICES  
IN NEW JERSEY, BY YEAR

Dependent Variable	Year 1			Year 2			p-value	Estimated Effect	p-value
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect			
<b>Nonelderly</b>									
Personal care expenditures	11,086	9,123	1,964	11,772	8,127	3,645	0.000***	0.000***	
Nonpersonal care expenditures	15,173	17,348	-2,175	12,653	13,411	-758	0.151	0.548	
Total Medicaid expenditures	26,259	26,471	-212	24,425	21,539	2,887	0.893	0.042**	
<b>Sample Size</b>	<b>671</b>			<b>671</b>					
<b>Elderly</b>									
Personal care expenditures	11,689	10,825	864	10,938	9,396	1,542	0.025**	0.005***	
Nonpersonal care expenditures	8,487	8,635	-149	9,077	8,579	498	0.827	0.569	
Total Medicaid expenditures	20,176	19,461	715	20,015	17,975	2,040	0.335	0.048**	
<b>Sample Size</b>	<b>776</b>			<b>776</b>					

Source: Medicaid claims data.

Notes: Early enrollees enrolled in the demonstration before January 1, 2002. Means were predicted using ordinary least squares regression models.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.



TABLE A.2c  
EFFECT OF CASH AND COUNSELING ON EARLY ENROLLEES' ANNUAL EXPENDITURES FOR MEDICAID SERVICES  
IN FLORIDA, BY YEAR

Dependent Variable	Year 1				Year 2			
	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value	Predicted Treatment Group Mean	Predicted Control Group Mean	Estimated Effect	p-value
<b>Nonelderly</b>								
Waiver expenditures	22,465	18,919	3,546	0.000***	24,931	21,491	3,440	0.001***
Nonwaiver expenditures	5,454	5,950	-496	0.286	5,312	5,154	158	0.741
Total Medicaid expenditures	27,919	24,869	3,051	0.001***	30,243	26,645	3,598	0.001***
<b>Sample Size</b>	<b>833</b>				<b>833</b>			
<b>Elderly</b>								
Waiver expenditures	10,412	9,601	811	0.077*	8,983	8,328	655	0.328
Nonwaiver expenditures	5,788	5,442	346	0.564	6,970	6,558	412	0.668
Total Medicaid expenditures	16,200	15,043	1,157	0.098*	15,953	14,886	1,067	0.320
<b>Sample Size</b>	<b>591</b>				<b>591</b>			

Source: Medicaid claims data.

Notes: Early enrollees enrolled in the demonstration before October 1, 2001. Means were predicted using ordinary least squares regression models. The nonelderly include those under age 60 and the elderly include those age 60 and older.

\*Estimated effect significantly different from zero at .10 level.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.

TABLE A.3  
 STATISTICAL POWER  
 (Percent)

	Power for a 10 Percent Change in Medicaid Expenditures			
	Full Sample	Early Enrollees	Nonelderly	Elderly
Arkansas	96	85	44	97
Florida	99	97	89	90
New Jersey	88	86	54	89

Note: Assumes a two-tailed test at the .10 significance level.

TABLE A.4

EFFECT OF CASH AND COUNSELING ON KEY QUALITY OUTCOMES, BY WHETHER CONTROLLING FOR RATIO OF ACTUAL TO EXPECTED COSTS

	Elderly						Nonelderly									
	With Cost Ratio Controls			Without Cost Ratio Controls			With Cost Ratio Controls			Without Cost Ratio Controls						
	Treatment Control	Estimated Effect	p-value	Treatment Control	Estimated Effect	p-value	Treatment Control	Estimated Effect	p-value	Treatment Control	Estimated Effect	p-value				
<b>Arkansas</b>																
Very Satisfied with Overall Care	65.4	57.1	8.3**	0.018	68.9	54.2	14.7***	0.000	65.9	46.6	19.4***	0.001	70.3	41.2	29.1***	0.000
Very Satisfied with Life	53.5	39.0	14.5***	0.000	56.1	37.4	18.7***	0.000	44.4	23.1	21.3***	0.000	43.8	23.5	20.3***	0.000
Unmet Need for Personal Care	40.3	33.3	7.0**	0.029	35.8	36.6	-0.8	0.793	26.4	38.8	-12.3**	0.022	25.9	40.9	-15.0***	0.001
<b>Sample Size</b>	<b>1,266</b>				<b>1,266</b>				<b>473</b>				<b>473</b>			
<b>New Jersey</b>																
Very Satisfied with Overall Care	55.2	37.6	17.7***	0.000	55.9	37.0	18.9***	0.000	51.3	35.4	15.9***	0.000	51.6	35.1	16.6***	0.000
Very Satisfied with Life	46.8	25.4	21.4***	0.000	47.1	25.2	21.9***	0.000	37.6	21.0	16.5***	0.000	37.7	21.0	16.7***	0.000
Unmet Need for Personal Care	44.4	56.7	-12.3***	0.001	43.6	57.4	-13.8***	0.000	46.4	54.6	-8.2**	0.033	46.2	54.7	-8.5**	0.027
<b>Sample Size</b>	<b>770</b>				<b>770</b>				<b>680</b>				<b>680</b>			
<b>Florida</b>																
Very Satisfied with Overall Care	50.2	46.7	3.5	0.408	50.1	46.9	3.2	0.446	68.7	47.2	21.5***	0.000	68.8	46.9	21.9***	0.000
Very Satisfied with Life	36.0	27.8	8.2**	0.042	35.9	27.9	8.0**	0.049	63.2	49.7	13.5***	0.001	63.4	49.5	13.9***	0.001
Unmet Need for Personal Care	42.9	46.4	-3.4	0.368	42.8	46.5	-3.7	0.332	26.4	33.4	-7.0**	0.018	26.5	33.4	-6.9**	0.019
<b>Sample Size</b>	<b>736</b>				<b>736</b>				<b>775</b>				<b>775</b>			

Table A. 4 (*continued*)

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Source: Medicaid claims data and MPR's nine-month follow-up survey of consumers.

Notes: Results in the left-hand column were estimated with a logit model that included a control variable for the ratio of actual costs to "expected" costs (according to the discounted baseline care plan). Results in the right-hand column were estimated with a logit model that did not include any cost-ratio controls.

\*\*Estimated effect significantly different from zero at .05 level.

\*\*\*Estimated effect significantly different from zero at .01 level.

**APPENDIX B**  
**ADMINISTRATIVE COSTS**



## ADMINISTRATIVE COSTS

When deciding whether to adopt a consumer-directed program, policymakers might want to consider how much the program will cost to administer. We initially intended to estimate the difference between the ongoing cost of administering Cash and Counseling and the cost of administering the traditional PCS program. However, high quality data on such costs were generally not available for the traditional program.<sup>1</sup> Nonetheless, we do report the other administrative costs for Cash and Counseling, because this information may help policymakers assess the full cost of running a Cash and Counseling model of consumer direction. (The administrative costs reported in the following discussion are *not* included in the treatment or control group's Medicaid PCS expenditures reported previously.)

We present the on-going costs of administering Cash and Counseling. We exclude the costs that states incurred for outreach and enrollment (which ranged from about \$100,000 over the first two years in Arkansas to about \$400,000 over the first two years in Florida), because these costs typically would not be part of an on-going program.

**Arkansas.** The IndependentChoices program employed the following staff in 2003: 15 to 25 percent of the time of a high-level administrator to oversee the program, a full-time project manager, a full-time programmer/analyst, and a half-time clerical person. The annual salary and fringe benefit costs for these staff members was about \$100,000 for the period from July 2002 through July 2003. During that year, the program also incurred administrative costs of about \$5,000 for travel and supplies. In total, then, the program had administrative costs of about \$105,000, or roughly \$126 per allowance recipient per year. These administrative costs represent about three percent of the total PCS costs per allowance recipient per year.

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<sup>1</sup> States did supply the costs for processing claims, but these costs were trivial for both the traditional program and for Cash and Counseling.

**New Jersey.** In 2001-2002, the New Jersey Personal Preference Program spent \$104,000 on the salary and benefits of 2 full-time staff, a project manager and a coordinator of counseling. It spent \$1,450 on quality assurance activities (developing a consumer satisfaction survey and a quality and improvement committee) and \$200 on consultant trainings.<sup>2</sup> Total costs administrative costs were about \$105,450, or about \$187 per allowance recipient per year (or less than two percent of total yearly PCS costs per allowance recipient).

**Florida.** Florida's Consumer Directed Care (CDC) program was administered by three agencies: the Department of Elder Affairs (DOEA), the Department of Children and Families/Adult Services (AS), and Developmental Disabilities (DD). Much of the administration of AS was done under DOEA; for example, DOEA provided consultant training and fiscal services for both DOEA and AS. In 2000-2001, DOEA had three full time staff members administering Cash and Counseling whose salary and benefit costs were \$146,000. It also paid \$20,000 to fiscal agencies for processing cash allowances and spent \$2,800 on quality assessment and monitoring for fraud and abuse. AS estimates that its ongoing salary costs for administering the program were \$2,000 (a small total, since only 77 AS beneficiaries enrolled in the demonstration and most of its administrative costs were incurred by DOEA.) DD spent \$320,000 on the salaries and benefit of part of the time of 15 staff members in district offices and 4 full time staff members in the central office. Staff in district offices worked as the liaison between the consultant and central office and would approve care plans. Training and technical assistance to the consultants was provided by staff in both the district and central offices. DD also spent \$7,000 on travel and \$2000 on marketing. Across DOEA, AS, and AD, Florida spent about \$500,000 administering CDC for both adults and children, or about \$616 per allowance

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<sup>2</sup> About \$10,000 per year was spent on consultant trainings during fiscal year 1999-2000 and 2000-2001; these were considered to be start-up costs.



recipient per year (less than four percent of the yearly costs for waiver services per allowance recipient).

**Summary.** The experiences of the three states suggests that the cost of administering a Cash and Counseling program was about two to four percent of each state's costs for allowances. However, these costs are greater than the net administrative costs that states should expect. If 10 to 20 percent of consumers no longer receive services from agencies, the costs of processing claims and administering the traditional program should decline somewhat. The extent to which such a reduction in those administrative costs would outweigh the new administrative costs of administering a Cash and Counseling program cannot be readily ascertained from the available data.



**APPENDIX C**  
**PROGRAM FEATURES**

TABLE C.1

## KEY FEATURES OF CASH AND COUNSELING PROGRAMS, BY STATE

	Arkansas's IndependentChoices	Florida's CDC	New Jersey's Personal Preference Program
Demonstration Enrollment Period	December 1998-April 2001	June 2000-July 2002 (Adults) and June 2000- August 2001 (Children)	November 1999-July 2002
Eligible Population	Adults (elderly and nonelderly) with physical disabilities (may also have cognitive disabilities) who were eligible for the state plan Medicaid personal care program	Those elderly adults and nonelderly adults with physical disabilities, and children and adults with developmental disabilities who were receiving services under the HCBS waiver	Adults (elderly and nonelderly) with physical disabilities who were already enrolled in the state plan Medicaid personal care program
Services Included in Calculating the Allowance Amount	Personal care	HCBS waiver services, except case management/support coordination	Personal care
Hiring Restrictions	Could not hire legally responsible relatives (such as spouses or parents) or representative	None	Could not hire representative
Care Plan Adjustment Factor Used in Setting Allowance	Provider specific, ranging from 70 to 91 percent and averaging 86 percent across all enrollees	89 percent for elderly adults, 83 percent for adults with physical disabilities, 92 percent for children and adults with developmental disabilities	None
Method for Calculating Allowance	\$8 per hour in care plan multiplied by provider- specific adjustment factor	Claims history or adjustment factor multiplied by value of care plan. (Care plan always used for those with developmental disabilities. Also used care plan if claims history wasn't stable or if care plan value was at least \$50 per month more than claims history.)	Value of care plan minus 10 percent set-aside for fiscal agent and counseling services
Median Monthly Prospective Allowance of All Demonstration Enrollees	\$313	\$829 (adults) and \$768 (children)	\$1,097
Funding for Fiscal Agent and Counseling Services	Paid for through pool of money generated from difference between \$12.36 per hour paid to agencies and \$8.00 per hour rate at which allowance was cashed out. Originally,	Counseling paid for through existing Medicaid funding stream for case management and support coordination in traditional program. Fiscal agent fees paid for	Set aside 10% of care plan value to cover counseling services and some fiscal agent costs. From this pool of money, the state paid human services agencies a lump sum per consumer to complete a

TABLE C1 (continued)

	Arkansas's IndependentChoices	Florida's CDC	New Jersey's Personal Preference Program
	agencies were paid a per-client, per-month rate for counseling and fiscal services, which was reduced at six-month intervals. Later in the demonstration, agencies were paid a fixed rate for developing a spending plan and then paid per client per month for counseling and fiscal services.	by schedule of fees charged to consumers (for example, \$5 per check).	cash management plan and an hourly fee thereafter for consulting; state also paid fiscal agent for some tasks, such as the processing of employment-related forms. Consumers paid some fiscal agent fees (such as for cutting and stopping checks).
Who Conducted Reassessments?	Agencies (for traditional program) and counselors (for allowance recipients)	Support coordinators or case managers (for traditional program) and counselors (for allowance recipients)	Agencies (for traditional program) and Medicaid nurses (for allowance recipients)
Participation in Other Consumer-Directed or Home Care Programs	Demonstration enrollees could also participate in the HCBS waiver programs ElderChoices or Alternatives. <sup>a</sup>	For adults with developmental disabilities, the six northern counties with a state-funded consumer-directed program.	Demonstration enrollees could not participate in HCBS waiver programs or a state-funded consumer-directed program.

<sup>a</sup>ElderChoices provides nurse-supervised homemaker, chore, and respite services to nursing-home-qualified elderly adults. Alternatives provides attendant care and environmental modifications to nonelderly adults and lets them choose and supervise caregivers. Among demonstration enrollees, 62 percent of the elderly participated in ElderChoices, and 9 percent of the nonelderly participated in Alternatives.

CDC = Consumer Directed Care; HCBS = home- and community-based services.

TABLE C.2  
ALLOWANCE RECEIPT AMONG TREATMENT GROUP MEMBERS IN  
ARKANSAS, FLORIDA, AND NEW JERSEY

	Full Sample											
	Year 1					Year 2						
	Nonelderly	Elderly	All	Nonelderly	Elderly	All	Nonelderly	Elderly	All	Nonelderly	Elderly	All
	<b>Percent Receiving Allowance During Year</b>											
Arkansas	88.9	81.7	83.7	90.2	82.1	84.5	73.7	58.6	63.1			
Florida	57.5	41.7	49.6	58.1	39.4	50.3	59.1	32.0	47.8			
New Jersey	67.2	64.1	65.5	66.3	63.1	64.5	61.8	57.6	59.5			
	<b>Months of Allowance Receipt, Averaged Across All Treatment Group Members</b>											
Arkansas	8.5	7.4	7.7	8.7	7.5	7.8	7.9	5.8	6.4			
Florida	4.2	3.3	3.8	4.5	3.0	3.9	6.6	3.3	5.2			
New Jersey	5.5	5.3	5.4	5.3	5.1	5.2	6.9	6.1	6.5			

Source: Medicaid claims data.

Note: Early enrollees enrolled in the demonstration before May 2000 in Arkansas, October 2001 in Florida, and January 2002 in New Jersey. The sample includes the 1,004 treatment group members in Arkansas (658 of whom were early enrollees), 909 in Florida (710 of whom were early enrollees), and 861 in New Jersey (719 of whom were early enrollees).