



U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy



EFFECT OF CONSUMER DIRECTION ON ADULTS' PERSONAL CARE AND WELL-BEING IN ARKANSAS, NEW JERSEY AND FLORIDA

May 2005

Office of the Assistant Secretary for Planning and Evaluation

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) is the principal advisor to the Secretary of the Department of Health and Human Services (HHS) on policy development issues, and is responsible for major activities in the areas of legislative and budget development, strategic planning, policy research and evaluation, and economic analysis.

ASPE develops or reviews issues from the viewpoint of the Secretary, providing a perspective that is broader in scope than the specific focus of the various operating agencies. ASPE also works closely with the HHS operating divisions. It assists these agencies in developing policies, and planning policy research, evaluation and data collection within broad HHS and administration initiatives. ASPE often serves a coordinating role for crosscutting policy and administrative activities.

ASPE plans and conducts evaluations and research--both in-house and through support of projects by external researchers--of current and proposed programs and topics of particular interest to the Secretary, the Administration and the Congress.

Office of Disability, Aging and Long-Term Care Policy

The Office of Disability, Aging and Long-Term Care Policy (DALTCP), within ASPE, is responsible for the development, coordination, analysis, research and evaluation of HHS policies and programs which support the independence, health and long-term care of persons with disabilities--children, working aging adults, and older persons. DALTCP is also responsible for policy coordination and research to promote the economic and social well-being of the elderly.

In particular, DALTCP addresses policies concerning: nursing home and community-based services, informal caregiving, the integration of acute and long-term care, Medicare post-acute services and home care, managed care for people with disabilities, long-term rehabilitation services, children's disability, and linkages between employment and health policies. These activities are carried out through policy planning, policy and program analysis, regulatory reviews, formulation of legislative proposals, policy research, evaluation and data planning.

This report was prepared under contract #HHS-100-95-0046 between HHS's ASPE/DALTCP and the University of Maryland. For additional information about this subject, you can visit the DALTCP home page at http://aspe.hhs.gov/_/office_specific/daltcp.cfm or contact the ASPE Project Officer, Pamela Doty, at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201. Her e-mail address is: Pamela.Doty@hhs.gov.

EFFECT OF CONSUMER DIRECTION ON ADULTS' PERSONAL CARE AND WELL-BEING IN ARKANSAS, NEW JERSEY AND FLORIDA

Barbara Lepidus Carlson
Stacy Dale
Leslie Foster
Randall Brown
Barbara Phillips
Jennifer Schore

Mathematica Policy Research

May 16, 2005

Prepared for
Office of Disability, Aging and Long-Term Care Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHS-100-95-0046

The opinions and views expressed in this report are those of the authors. They do not necessarily reflect the views of the Department of Health and Human Services, the contractor or any other funding organization.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	v
EXECUTIVE SUMMARY	vii
INTRODUCTION	1
New Model of Medicaid Personal Assistance	2
Key Features of the Three Demonstration Programs.....	3
Counseling and Fiscal Services	8
EXPECTED EFFECTS OF CASH AND COUNSELING ON SERVICE USE AND QUALITY OF CARE	10
DATA AND METHODS	12
Outcome Measures.....	13
Estimation of Program Effects	14
Statistical Power	16
Characteristics of Respondents at the Nine Month Interview.....	17
Proportion of People Actively Participating	21
RESULTS	23
Nonelderly Adults.....	24
Elderly Adults	35
DISCUSSION	45
Limitations.....	47
Policy Implications	49
Conclusions	49
REFERENCES	50
APPENDIX A: PROXY RESPONDENTS	
APPENDIX B: DETAILS ON SELECTED OUTCOME MEASURES	
APPENDIX C: IMPUTATION METHODS	
APPENDIX D: TABLES	

LIST OF TABLES

TABLE 1.	Key Features of Cash and Counseling Programs, by State.....	5
TABLE 2.	Distribution of Monthly Allowance Amounts at Enrollment for All Adult Demonstration Enrollees, by State	7
TABLE 3.	Response Summary for Baseline and Nine Month Follow-Up Surveys, by State.....	13
TABLE 4.	Selected Baseline Characteristics of Respondents to the Nine Month Interview of Nonelderly Adults, by State	19
TABLE 5.	Selected Baseline Characteristics of Respondents to the Nine Month Interview of Elderly Adults, by State	20
TABLE 6.	Monthly Allowance Status of Treatment Group Members at Nine Months.....	22
TABLE 7.	How Monthly Allowance was Used Among Those Treatment Group Members Recently Receiving Monthly Allowance, by State	23
TABLE 8.	Estimated Effects of Cash and Counseling on Likelihood of Living in the Community and Receiving Assistance During Past Two Weeks--Nonelderly	25
TABLE 9.	Who Did Treatment Group Members Hire?--Nonelderly	26
TABLE 10.	Estimated Effects of Cash and Counseling on the Timing of Care Received During Past Two Weeks--Nonelderly	27
TABLE 11.	Estimated Effects of Cash and Counseling on the Hours of Care Received During Past Two Weeks--Nonelderly	28
TABLE 12.	Estimated Effects of Cash and Counseling on Home Modifications and Equipment Purchases of Repairs--Nonelderly	29
TABLE 13.	Estimated Effects of Cash and Counseling on Unmet Needs--Nonelderly	30
TABLE 14.	Estimated Effects of Cash and Counseling on Satisfaction with Paid Caregivers' Reliability and Schedule--Nonelderly	31
TABLE 15.	Estimated Effects of Cash and Counseling on Quality of Care Provided by Paid Caregiver and Relationship--Nonelderly	32

TABLE 16.	Estimated Effects of Cash and Counseling on Paid Caregiver Performance and Transportation Assistance--Nonelderly.....	33
TABLE 17.	Estimated Effects of Cash and Counseling on Satisfaction with Care Arrangements and with Life--Nonelderly.....	33
TABLE 18.	Estimated Effects of Cash and Counseling on Adverse Health Outcomes--Nonelderly	34
TABLE 19.	Estimated Effects of Cash and Counseling on Likelihood of Living in the Community and Receiving Assistance During Past Two Weeks--Elderly	36
TABLE 20.	Who Did Treatment Group Members Hire?--Elderly	37
TABLE 21.	Estimated Effects of Cash and Counseling on the Timing of Care Received During Past Two Weeks--Elderly	38
TABLE 22.	Estimated Effects of Cash and Counseling on the Hours of Care Received During Past Two Weeks--Elderly	38
TABLE 23.	Estimated Effects of Cash and Counseling on Home Modifications and Equipment Purchases of Repairs--Elderly	39
TABLE 24.	Estimated Effects of Cash and Counseling on Unmet Needs--Elderly.....	40
TABLE 25.	Estimated Effects of Cash and Counseling on Satisfaction with Paid Caregivers' Reliability and Schedule--Elderly	41
TABLE 26.	Estimated Effects of Cash and Counseling on Quality of Care Provided by Paid Caregiver and Relationship--Elderly	42
TABLE 27.	Estimated Effects of Cash and Counseling on Paid Caregiver Performance and Transportation Assistance--Elderly.....	43
TABLE 28.	Estimated Effects of Cash and Counseling on Satisfaction with Care Arrangements and with Life--Elderly.....	43
TABLE 29.	Estimated Effects of Cash and Counseling on Adverse Health Outcomes--Elderly	44
TABLE A.1.	Description of Outcome Measures.....	D-1
TABLE A.2.	Baseline Characteristics of Respondents to the Nine Month Interview, Nonelderly Adults by Evaluation Status.....	D-3

TABLE A.3.	Baseline Characteristics of Respondents to the Nine Month Interview, Elderly Adults by Evaluation Status	D-9
TABLE A.4.	Minimum Detectable Effects	D-14
TABLE A.5.	Distribution of Hours of Care Received in the Past Two Weeks for Adults--Nonelderly	D-14
TABLE A.6.	Estimated Effects of Cash and Counseling on the Type of Care Received During Past Two Weeks--Nonelderly	D-15
TABLE A.7.	Estimated Effects of Cash and Counseling on Community Services Use--Nonelderly	D-16
TABLE A.8.	Distribution of Hours of Care Received in the Past Two Weeks for Adults--Elderly	D-17
TABLE A.9.	Estimated Effects of Cash and Counseling on the Type of Care Received During Past Two Weeks--Elderly	D-18
TABLE A.10.	Estimated Effects of Cash and Counseling on Community Services Use--Elderly	D-19

ACKNOWLEDGMENTS

Numerous individuals at Mathematica Policy Research, Inc. (MPR) made this report possible, including Licia Gaber, Peter Crosta, Gloria Gustus, Monica Capizzi, Dawn Smith, and members of the editorial staff.

This report has also benefited greatly from the thoughtful comments and suggestions of individuals outside MPR. In particular, we appreciate the input of Kevin Mahoney and Lori Simon-Rusinowitz from the National Program Office, Sue Flanagan and Marie Squillace of the Cash and Counseling Demonstration and Evaluation management team; Debby Ellis of the IndependentChoices program (Arkansas); Lou Comer, Tom Reimers, Maureen Olson, and Carol Schultz of the Consumer-Directed Care program (Florida); Marguerite Schervish of the Centers for Medicare & Medicaid Services; and the external reviewers Ted Benjamin, Scott Miyake Geron, Rosalie Kane, and Barbara Schneider.

We also thank the staff at the Centers for Medicare & Medicaid Services for their valuable support and suggestions, and for helping to make the demonstration possible by obtaining the necessary waivers.

The opinions presented here are those of the authors and do not necessarily reflect the views of the funders (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 National Program Office, the Cash and Counseling demonstration states, or the Centers for Medicare & Medicaid Services.

EXECUTIVE SUMMARY

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. As a result, consumers may not receive the type of care they feel they need, nor when and how they want it. Consequently, some are dissatisfied with their care, have unmet needs, and are unhappy with the quality of their lives.

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 model of consumer-directed care changes the way that consumers with disabilities meet their personal care needs and how that affects their well-being. Demonstration enrollment, which occurred between December 1998 and July 2002, was open to interested beneficiaries who were eligible for PCS under their state Medicaid plan. 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).¹ Cash and Counseling consumers had the opportunity to receive a monthly allowance, which they could use to hire their choice of caregivers (but not spouses or legal guardians in Arkansas) or to buy other services or goods needed for daily living. Each state had its own list of other services or goods that consumers could purchase without prior approval. Other items had to be approved on a case-by-case basis. Consumers could also call on counselors for support and advice about managing the allowance. The three states differed in how they operationalized the program, and in the size of the allowance and how it could be used, but each adhered to the basic principle of providing an allowance with limited constraints, along with some assistance in how to use it.

Because Cash and Counseling gives consumers greater flexibility and autonomy in their choice of services than the traditional system does, we expected that the individuals in the treatment group and those in the control group would meet their personal assistance needs quite differently on several dimensions. In particular, we anticipated that those in the treatment group would be more likely than those in the control group to have paid assistance at followup, to receive care during nonbusiness hours, to have multiple paid caregivers, to purchase assistive equipment and supplies, and to make home and vehicle modifications. We expected that these changes, along with being able to choose who provided the care and how that care was delivered, would improve consumer satisfaction and reduce the number of unmet needs. The treatment group, for example, was expected to have fewer unmet care needs and to be more satisfied with their paid caregivers, with their overall care arrangements, and with their life in general, without suffering more injuries or other adverse health outcomes.

¹ The Centers for Medicare & Medicaid Services (CMS) approved amendments to Florida's program (May 30, 2003) and Arkansas's program (October 2, 2002) to end the randomization requirement; New Jersey has submitted its amendment (May 17, 2004) to CMS to end randomization.

Outcome measures related to the use of PCS services and consumer satisfaction were drawn from computer-assisted telephone surveys. Because most of the outcomes were binary, logit models were used to estimate treatment-control differences, controlling for possible preexisting differences between the two groups. Program effects were estimated separately for elderly and nonelderly adults, as some believe that consumer-directed care will not work for frail, elderly individuals. The results are reported separately for each state so as to capture any differences in impacts that may arise from variations in program features.

Cash and Counseling had sizable effects on the proportion of people receiving paid care in Arkansas and New Jersey but not in Florida. In Florida, to be eligible for the program, beneficiaries had to already be receiving services under the Home and Community-Based Services Waiver, and therefore a higher percentage of enrollees in Florida were already receiving that care before enrollment. The program increased hours of paid care received by the elderly in Arkansas and New Jersey, and by the nonelderly in Florida and New Jersey, but had no effect on their total hours of care for any of these groups because the hours of unpaid care decreased (relative to the control group) for both age groups in all three states.

There were also considerable differences across states in the percentage of individuals actually receiving the allowance at nine months. Indeed, nine months after enrollment many treatment group members were not receiving the monthly allowance, especially in Florida, where fewer than half the adult treatment group members were receiving the monthly allowance at the time of the followup interview. Nine months after enrollment, about 75 percent of all treatment group members in Arkansas and 61 percent in New Jersey reported receiving the monthly allowance. In Florida, only 54 percent of the nonelderly and 39 percent of the elderly treatment group members reported receiving the monthly allowance at followup. (These estimates differ from those in the table below, which displays the proportion receiving an allowance among paid care recipients.) Virtually all of the treatment group members who were not receiving the monthly allowance were receiving traditional agency services.

Cash and Counseling had many positive effects for the nonelderly in all three states regarding their satisfaction with their overall care and general life situation but, for the elderly, only Arkansas and New Jersey had these positive results because so few Florida elderly treatment group members were getting the intervention. These estimates are representative of the effects we saw in many other indicators of care satisfaction and unmet needs.

Concerns that consumers would be more susceptible to adverse health outcomes or injuries if cared for by consumer-hired workers were not realized. For none of the measures of adverse outcomes we examined did treatment group consumers fare worse than those in the control group in any state. For example, there was no difference in the percentage of individuals who had contractures in Arkansas for either age group, or for younger adults in New Jersey and older adults in Florida. But there were significantly *fewer* problems on some measures in one or two of the states (for

example, with contractures among younger adults in Florida and older adults in New Jersey).

Key Cash and Counseling Demonstration Outcomes (Percent)						
	Arkansas		New Jersey		Florida	
	Treatment	Control	Treatment	Control	Treatment	Control
Nonelderly Adults						
Receiving Any Paid Care at Nine Months	94.5***	67.8	91.6***	78.7	76.4***	64.2
Receiving allowance at nine months ^a	80.6	N/A	66.8	N/A	67.5	N/A
Very satisfied with paid help with personal care ^a	95.9***	75.7	82.8***	69.6	92.0***	65.4
Very Satisfied with Life	43.4***	22.9	37.5***	21.0	63.5***	50.2
Contractures Developed/Worsened	26.0	25.2	24.5	28.1	9.0**	14.0
Elderly Adults						
Receiving Any Paid Care at Nine Months	94.2***	78.8	93.9***	81.9	94.0	91.2
Receiving allowance at nine months ^a	74.4	N/A	65.2	N/A	41.4	N/A
Very satisfied with paid help with personal care ^a	84.6***	75.7	79.9***	60.0	73.5	69.1
Very Satisfied with Life	55.5***	37.0	47.1***	25.3	35.9**	27.9
Contractures Developed/Worsened	15.9*	19.7	17.5***	27.1	20.0	21.9
<p>a. Among those receiving paid care at nine months.</p> <p>* Difference between treatment and control groups significantly different from 0 at the .10 level, two-tailed test.</p> <p>** Difference between treatment and control groups significantly different from 0 at the .05 level, two-tailed test.</p> <p>*** Difference between treatment and control groups significantly different from 0 at the .01 level, two-tailed test.</p>						

In general, the largest impacts of Cash and Counseling on the receipt of paid care and quality of care were in Arkansas, where the control group was least likely to be receiving the care that they were authorized for (primarily the result of labor shortages) and where the treatment group was most likely to start receiving the monthly allowance in a timely manner. More moderate effects were evident in New Jersey, mainly because about 40 percent of treatment group members still in the community were not receiving the monthly allowance at the followup interviews about nine months after enrollment. The smallest impacts of the program were seen in Florida, especially among the elderly adults. It is important to note that, although the effects were somewhat smaller for elderly participants than for the nonelderly, the program worked well for the former age group, which had been a concern raised about the Cash and Counseling model.

States interested in improving the well-being of Medicaid beneficiaries who need PCS should consider adopting consumer-directed approaches such as Cash and Counseling. In so doing, states should ensure that consumers have the support they need from counselors to develop a spending plan so that they can actually start receiving the monthly allowance. States also need to ensure that counselors explain to

consumers that they are available to provide assistance and support in setting up a spending plan and managing their allowance.

This analysis was based on a strong, randomized research design and yielded estimated program effects that were large, compelling, consistent across numerous types of measures, and widespread across subgroups. Overall, this study offers unambiguous evidence that Cash and Counseling improved the amount and quality of paid personal assistance from the perspective of consumers, with no discernible adverse effects on safety or health. Analyses currently in progress will assess the financial consequences of adopting these programs in the three demonstration states.

INTRODUCTION

Medicaid beneficiaries with personal care needs traditionally receive services from home care agencies, but that approach may not be the most desirable way to satisfy individual needs or preferences.² Although agencies do provide important benefits to consumers, such as formally trained and supervised workers, consumers' choices about how and when their care is provided is often limited. In response to this shortcoming, many states are offering an alternative, called "consumer-directed care," which would enable consumers to control the funds for their care and to obtain services directly from individual providers (Velgouse and Dize 2000). Thus consumers manage their care in ways that better meet their needs, without increasing public costs.

Evidence of this growing movement toward consumer direction may be seen in the estimated 139 publicly funded, consumer-directed personal assistance programs that were offering their services in the United States in 1999 (Flanagan 2001). Thus, under the aegis of federal Systems Change Grants for Community Living³ and other initiatives spurred by the Bush administration's subsequent New Freedom Initiative, many states are now considering additional consumer-directed options.

A number of concerns have been raised, however, by critics of consumer-directed care, mostly regarding the welfare of consumers. A primary objection among some advocates for the elderly is that, although people with disabilities have long argued for greater control over the care they receive, consumer-directed care may be inappropriate for elderly people who are frail or cognitively impaired, and who may not be able to manage their own care effectively and safely. Other critics worry that elderly or cognitively impaired consumers might receive inadequate or substandard care, because the workers they hire may not receive the formal training or supervision available to agency workers. Additional worries are that consumers may have difficulty finding back-up care; that they might not use the monthly allowance intended for their care appropriately; and that the allowance might be used to pay family members to provide care that was once provided at no cost. Other potential problems are that consumers might be exploited or possibly abused; that oversight by a health professional would be

² The terms "personal care" and "personal assistance" are used interchangeably throughout this report to refer to the type of Medicaid services in all three states for which an allowance is provided in lieu of services (that is, services included in calculating a consumer's monthly allowance). However, the services these terms refer to in Arkansas and New Jersey differ from those in Florida. In the former states, personal care services, or PCS, include help with "activities of daily living" (bathing and dressing) and "instrumental activities of daily living" (housework, laundry, and meal preparation). In Florida, in addition to these services, other benefits include the various therapies that may be required (for example, physical, occupational, and behavioral) as well as personal care supplies. A more accurate term for Florida's included benefits is "home and community-based waiver services."

³ On May 22, 2001, the Centers for Medicare & Medicaid Services (CMS) invited proposals from states and others in partnership with their disability and aging communities to design and implement effective and enduring improvements in community long-term support systems (<http://www.cms.hhs.gov/systemschange>).

absent; and that home care agency workers, who currently provide most of this type of care, would experience a loss of market share.

A new model of consumer-directed care designed to increase consumers' control over their care while at the same time addressing concerns about consumers' well-being is the Cash and Counseling program. To ensure that elderly individuals who are frail or cognitively impaired can manage their own care effectively and safely, Cash and Counseling allows these consumers to have a family member or close friend act as a representative to handle the responsibilities of the program on their behalf. The program also addresses concerns regarding patients' ability to manage allotted funds by providing counselors to ensure that funds are used appropriately and that consumers are not being exploited.

This report examines the effects of the Cash and Counseling program in three states--Arkansas, Florida, and New Jersey--regarding how consumer direction affects the use and quality of both paid and unpaid personal care assistance received by consumers, as measured by consumers' satisfaction with care, the frequency of unmet needs, and the incidence of adverse health events arising from inadequate care. More than half the evaluation sample is elderly or cognitively impaired, and thus the success of the program for these consumers should help to address worries about offering consumer-directed care to this population.

The evaluation of Cash and Counseling used a randomized design to provide the first rigorous comparison of agency- and consumer-directed approaches to PCS. Included in the report is a comparison of the results of the demonstration programs in all three states.⁴

New Model of Medicaid Personal Assistance

In 2001, about 1.4 million individuals with disabilities--a diverse population of various ages--received supportive services in their homes through state Medicaid plans or home and community-based services (HCBS) waiver programs (Harrington and Kitchener 2003). Most of them received these services from government-regulated home care agencies whose professional staff select, schedule, and monitor the quality of those services.

As one model of consumer direction of supportive services, Cash and Counseling provides Medicaid beneficiaries with a flexible monthly allowance. They may 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

⁴ For information on the impacts of Cash and Counseling on these outcomes for developmentally disabled children, see Foster et al. 2004. Only Florida offered Cash and Counseling to children.

personal care needs, and provides counseling and fiscal assistance⁵ to help consumers plan and manage their responsibilities. Consumers who are cognitively impaired or otherwise unable to manage their care themselves (and those who do not wish to assume these responsibilities but still want some control over the services they receive) may designate a representative, such as a family member, to help them manage their care or to assume these responsibilities on their behalf. These features make Cash and Counseling adaptable to consumers of all ages and with all levels of ability.

With funding from the Robert Wood Johnson Foundation (RWJF) and the Office of the Assistant Secretary for Planning and Evaluation of the United States Department of Health and Human Services, the Cash and Counseling Demonstration and Evaluation was implemented in three states--Arkansas's IndependentChoices, Florida's Consumer Directed Care, and New Jersey's Personal Preference Program.⁶ CMS issued the waivers required for states to implement it. The 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. Mathematica Policy Research, Inc. (MPR) is the demonstration evaluator. Because the Medicaid programs and political environments of the demonstration states differed considerably, the three states were not required to implement a standardized intervention. However, they were required to adhere to the basic Cash and Counseling tenets of flexibility in the use of the allowance and support to make it possible for all consumers to participate, as described above.

Key Features of the Three Demonstration Programs

Although there had long been a movement toward consumer-directed care for disabled adults, the idea of expanding the model to include frail elderly adults was new. Interest groups for the elderly have recently warmed up to the idea of consumer direction, but they need to understand how the elderly would deal with this new approach. And although other states had implemented some form of consumer-directed care in which a family member would be paid for providing care, the Cash and Counseling model provided more flexibility in terms of how the monthly allowance could be spent (for example, it could also be used to purchase equipment or supplies or to modify a home or van).

As the three states began their demonstrations, each one wanted to determine if the Cash and Counseling model was politically and economically feasible in their state

⁵ In all three states, consumers could choose to receive their monthly allowance directly and to manage payroll taxes and write checks themselves, but few chose that option.

⁶ Through a competitive bidding process, four states were selected from among those responding to the RWJF's Request for Proposals for the initial round of the Cash and Counseling Demonstration: Arkansas, Florida, New York, and New Jersey. New York had problems becoming operational, which left three participating grantee states. Arkansas was the first of these states to start enrolling consumers, in 1998.

environments. None expected to save public funds. Arkansas stressed increasing access to care more than Florida and New Jersey did because home care workers were in unusually short supply in Arkansas, particularly in the state's rural areas.⁷

The programs of all three states shared key features, but they also differed in important ways. Table 1 provides additional details about key program features across the three states. Florida differed substantially from the other two states in the services that were covered and the target population served under their Cash and Counseling programs. Arkansas and New Jersey cashed out (provided an allowance in lieu of) personal care benefits covered under their Medicaid state plan for elderly adults and nonelderly adults with disabilities. Florida cashed out all goods and services covered under its Medicaid HCBS waiver program, including behavioral therapy and personal care supplies, as well as personal care, for elderly adults, nonelderly adults with physical disabilities, and children and adults with developmental disabilities. Many consumers in Florida with developmental disabilities were not eligible to receive PCS under the waiver program, and instead were assessed as needing only therapy or supplies.

Florida also differed from the other two states in what consumers gave up upon enrollment in Cash and Counseling, notably the formal case management services⁸ the state provides to beneficiaries in their waiver program. The case manager in Florida takes an active role in coordinating all the services the beneficiary receives, including those from other agencies. Under Cash and Counseling, these case management services were no longer provided. Unlike other waiver services replaced by Cash and Counseling, the cost of case management was not factored into the monthly allowance and, instead, was used by the program to pay for counseling services.

To be eligible for the demonstration in Florida and New Jersey, beneficiaries had to be under the care of an agency or at least have a plan of care developed by an agency. Arkansas also allowed individuals to enroll who were eligible for Medicaid personal care but were not yet receiving it. None of the states screened eligible consumers to see if they were appropriate candidates; rather, consumers were allowed to enroll if they (or their representatives) felt that they could manage the Cash and Counseling program.

⁷ The three Cash and Counseling demonstration programs are not the only consumer-directed options available in the three states. At about the same time as the Cash and Counseling demonstration began, Arkansas implemented a small consumer-directed program called "Alternatives" that allowed someone to get paid to provide care for an adult family member who was disabled. New Jersey had in place the Personal Assistance Services Program (PASP), which provides help with routine medical care and chore-related tasks to people with chronic physical disabilities and also helps to enable program consumers to pursue vocational goals and maximize self-independence. Florida had a small state-funded pilot program called Choice and Control in 14 counties. This program provided services to developmentally disabled adults through a consumer-directed, choice-based system. This program was later rolled into the Cash and Counseling program with the approval of CMS.

⁸ For those who are developmentally disabled, "case management" is referred to as "support coordination."

TABLE 1. Key Features of Cash and Counseling Programs, by State			
	Arkansas' IndependentChoices	Florida's Consumer Directed Care	New Jersey's Personal Preference Program
Demonstration Enrollment Period	December 1998-April 2001	June 2000-July 2002 (Adults) and June 2000 through August 2001 (Children)	November 1999-July 2002
Eligible Population	Adults (elderly and nonelderly) with physical disabilities (and 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 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 Discount 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 discount factor	Claims history or discount factor multiplied by value of care plan. (Care plan always used for those with developmental disabilities. Also used care plan if claims history was not 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 per hour rate at which allowance was cashed out. ^a	Counseling paid for through existing Medicaid funding stream for case management and support coordination in traditional program. Fiscal agent fees paid for by schedule of fees charged to consumers (for example \$5 per check).	Set aside 10 percent 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 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 ^b	For adults with developmental disabilities, the demonstration excluded 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
<p>a. Originally, agencies were paid a per client per month rate for counseling services which was reduced at 6-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 services.</p> <p>b. 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.</p>			

In Arkansas and New Jersey, and for beneficiaries in Florida with developmental disabilities, the amount of the allowance was based on the expected cost to the state for the services in the care plan; for elderly adults or adults with physical disabilities in Florida, it was based on the history of Medicaid claims. If the claims history was unstable or inconsistent with the current care plan, then the care plan became the basis of the allowance allotted. The allowance amounts in Arkansas and Florida were discounted to ensure that the allowances of treatment group members were in line with the expected cost of services that similar control group members were likely to receive (because of hospitalizations, workers failing to show up at times, or other problems, consumers in the traditional program often received somewhat less care than their plans recommended). Arkansas multiplied the number of hours in the plans by a discount factor ranging from 70 to 91 percent to reflect the historical differences observed between the actual services delivered by different agencies and those authorized in the care plan. In Florida, the discount factor was 89 percent for the elderly, 83 percent for adults with physical disabilities, and 92 percent for children and adults with developmental disabilities. New Jersey, having determined that consumers typically receive the full value of their care plans, did not adopt a discount factor.

The median monthly allowance consumers qualified for at enrollment varied widely across the three states, ranging from \$313 in Arkansas to \$1,097 in New Jersey, with Florida falling midway between these two extremes (\$829) (see Table 2). Amounts also differed greatly among consumers within the states. These large differences reflected cross-state differences in the generosity of the Medicaid or waiver benefit, prevailing wages, and the types of services included in the allowance.

In all three states, the care plans (and allowance amounts) of sample members could change over time as a result of periodic reassessments. In Arkansas, the control group members were reassessed by the agencies, and the treatment group members by the program's counselors. In New Jersey, agencies reassessed those in the traditional program, and Medicaid nurses reassessed those in Cash and Counseling. However, to authorize more than 25 hours of care, agencies had to seek approval from Medicaid. In Florida, support coordinators were responsible for reviewing the support plans of control group members and for revising them as necessary to ensure that needs were met; counselors had comparable responsibility for those receiving the allowance. Care plan values also changed over time in New Jersey because the rate per hour paid to agencies (and therefore the rate at which hours were cashed out) increased by about 7 percent over the study period.

TABLE 2. Distribution of Monthly Allowance Amounts at Enrollment for All Adult Demonstration Enrollees, by State			
	Arkansas	New Jersey	Florida
Mean	\$312	\$1,081	\$1,207
Minimum	29	109	38
25th Percentile	202	664	470
Median	313	1,097	829
75th Percentile	433	1,403	1,433
Maximum	2,003	2,782	28,102
Sample Size	1,970	1,754	1,818
SOURCE: Monthly allowance benefit data provided by state programs at the time of intake. In Arkansas intake took place between December 1998 and April 2001. In New Jersey, intake took place between November 1999 and July 2002. In Florida, intake took place between June 2000 and July 2002.			
NOTE: Sample sizes for Arkansas and New Jersey do not equal the number of enrollees due to missing values for one of the variables involved in calculating the monthly allowance (such as the allowance amount itself or the discount rate).			

Consumers (or their representatives) in all three programs were required to develop a spending plan that specified the personal assistance services needed and the equipment, goods, or other services to be purchased with the allowance. In Florida, consumers were expected to initiate contact with their counselor to establish a spending plan; in Arkansas and New Jersey, program counselors took more initiative in getting treatment group members started. Only goods and services related to the consumer's disability were permissible; however, the states usually took a broad view in assessing the purchases they would allow (for example, microwave ovens and washing machines were permitted). In general, worker time sheets and receipts for items purchased had to be submitted in order for checks to be written; consumers were not given accounts that they could write checks against, as they would with a private bank account. Spending plans could include relatively small amounts of cash--up to 10 percent of the allowance in Arkansas and New Jersey, and up to 20 percent in Florida⁹--to be paid to the consumer for incidental expenses (such as taxi fare) that were not readily purchased through an invoicing process.

All three Cash and Counseling programs recouped funds from consumer accounts maintained by the fiscal agent. The recouping procedures differed across programs. All three permitted recouping when the advancement of funds had been inappropriate (for example, the payment of an allowance after the consumer had disenrolled from the program or had undergone a lengthy hospitalization). Arkansas began recouping funds in July 2002 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 unexpended 12 months after enrollment when no use of the funds was designated in a consumer's spending plan. Florida is enacting policies and developing procedures that would allow the state to recoup undesignated funds or funds that were designated for a particular purpose but had not been spent within a certain period.

⁹ In Florida, requests for cash exceeding 20 percent of the allowance required counselor approval.

Consumers were allowed to hire relatives in all three states. A waiver of federal regulations permitted them to hire legally responsible relatives (such as spouses, parents of minors, and other legal guardians). Florida and New Jersey exercised this waiver, but Arkansas did not. Consumers who hired workers became their employer of record. To avoid a possible conflict of interest, Arkansas and New Jersey did not allow the same individual to serve as both representative and worker. Florida made no such restriction because its program was also open to children, and the state was mindful that parents typically both represent *and* care for their children.

Counseling and Fiscal Services

In all three Cash and Counseling programs, consumers were offered the assistance of counselors (or “consultants,” as they are referred to in New Jersey and Florida) and a fiscal agent. Counselors interacted with consumers to (1) review initial and revised spending plans to 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. Florida and New Jersey required that state- or district-level staff review *all* spending plans. Arkansas required such review only if a plan contained an item that was not on a preapproved list. In all three programs, consumers could seek advice from counselors about recruiting, hiring, training, supervising and, when necessary, firing workers. Counselors were required to telephone and visit consumers periodically to monitor their condition and their use of the allowance. Although the frequency of required calls and visits varied across programs, counselors provided additional monitoring and problem-solving calls and visits as needed. While the Cash and Counseling program in all three states makes counselors available to perform some of the care coordinating functions performed by traditional case managers (and support coordinators) in Florida, Cash and Counseling does not impose this service on participants.

Consumers in all three programs were offered assistance 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 small number of consumers assumed responsibility for all fiscal tasks. Despite an offer of free training, no consumer in New Jersey chose to take the required skills examination.

To prevent abuse of the allowance, worker time sheets and check requests in all three programs were verified against spending plans before funds were disbursed.¹⁰ Counselors in Arkansas and Florida also checked receipts for expenditures under the allowance.¹¹ (New Jersey did not require the consumer to retain receipts.)

¹⁰ See Cash and Counseling program implementation reports for information about the abuse of benefits.

¹¹ In Florida, the fiscal agent reviewed receipts for all purchases made by the few consumers who assumed responsibility for fiscal tasks themselves.

EXPECTED EFFECTS OF CASH AND COUNSELING ON SERVICE USE AND QUALITY OF CARE

Under Cash and Counseling, consumers had greater flexibility and autonomy in their choice of services than they had under the traditional system. Therefore, we expected that individuals in the treatment group would meet their personal assistance needs in many areas differently than would members of the control group. These changes, in turn, were expected to improve consumer satisfaction and to reduce unmet needs.

Recent research by Benjamin, Matthias, and Franke (2000) on consumer direction in California suggests that such programs can have favorable effects on quality of care as well as the issue of unmet needs, but few studies have directly investigated its effect on *service use*. An evaluation of a cash assistance program in the Netherlands found that individuals receiving cash could buy more hours of services than a randomly assigned control group, because services purchased in the private market cost less than those provided by agencies (Miltenburg, Ramakers, and Mensink 1996). Some studies found that consumers replaced paid caregivers with family and friends (Grana and Yamashiro 1987; Osterle 1994). Other research indicated, however, that consumers did not choose to pay their former informal caregivers but continued to rely heavily on the care provided by agencies or workers hired privately (Cameron and Firman 1995). Allen, Foster, and Berg (2001) and Hoening, Taylor, and Sloan (2003) found that the use of assistive equipment reduced the number of hours of assistance received by individuals with disabilities.

Given those findings and the program's intent to be flexible and consumer-friendly, we expected that, *compared to control group numbers*, Cash and Counseling treatment group members would:

- Be more likely than control group members to be receiving paid assistance at followup.
- Be more likely to receive paid assistance during the early morning, in the evening, and on the weekend.
- Have more paid caregivers (since consumers might hire different people to meet their needs at various times of the day and week).
- Be more likely to purchase assistive equipment and supplies and to make home and vehicle modifications.
- Receive different amounts of both paid care and unpaid care (the amounts of care could be greater or lesser, depending on whether consumers substitute equipment for human assistance or have difficulty obtaining workers).

The self-directed changes consumers make were expected to improve consumer satisfaction, reduce unmet needs, and enhance quality of life. Benjamin, Matthias, and Franke (2000), using a natural experiment presented by California's In-Home Supportive Services program, found that self-directing consumers had significantly better outcomes than those receiving agency-directed services with respect to sense of security, unmet needs with regard to instrumental activities of daily living, technical quality of care, ability to pursue desired activities, general satisfaction, and providers' interpersonal manner. However, these findings may have been the result of unmeasured differences between the groups being compared.

On the other hand, critics argue that quality of care, adverse events, and health problems could worsen if managing the allowance or recruiting caregivers proves too burdensome, if the loss of nurse supervision leads to problems going undetected, if qualified caregivers are not available for hire, or if consumers purchase too little assistance from caregivers. Supporters contend that there is no evidence that nurse supervision of caregivers in the traditional agency model provides more safeguards against adverse health events than the consumer-directed model, in which the consumer, the family, the caregivers, and the counselors can detect and address any health problems that arise.

In terms of quality of care, we expected that, compared to control group members, treatment group members would:

- Have fewer unmet needs in terms of activities of daily living, household activities, transportation, and routine health care at home.
- Be more satisfied with their paid caregivers.
- Be more satisfied with their overall care arrangements, and with their lives in general.
- Have no more injuries or other adverse health outcomes than control group members have.

DATA AND METHODS

Interested consumers who met the eligibility criteria were given a baseline interview and then randomly assigned to the treatment group or the control group. Treatment group members had the option of disenrolling and returning to traditional agency-provided care any time they wished.

We then interviewed the members of both groups, nine months later, on their use of services, their satisfaction with care, unmet needs, and health status. Data for this analysis were drawn primarily from two computer-assisted telephone surveys of treatment and control group members or their proxy respondents (see the discussion below). We constructed control variables from responses to the baseline survey and from outcome variables related to PCS use from responses to the survey conducted nine months after each sample member's random assignment. The survey instruments used established measures and were pretested with respondents comparable to those in the demonstration population.

The baseline survey, administered between December 1998 and July 2002, was completed by 2,008 adults in Arkansas, 1,755 adults in New Jersey, and 1,818 adults in Florida.¹² In Arkansas, 72 percent were age 65 or older; in New Jersey, 53 percent were age 65 or older; and in Florida, 50 percent of the adults in the sample were age 60 or older. Data were collected on demographic characteristics, health and functioning, use of paid and unpaid personal assistance, reasons for enrollment in the demonstration, work and supervisory experience, unmet needs, satisfaction with services, and several quality indicators.

The nine month survey, administered between September 1999 and May 2003, was completed by 88 percent of the treatment group and by 83 percent of the control group across all three states.¹³ We attempted nine month interviews with all sample members or their proxies, including those of deceased sample members and of consumers who disenrolled from Cash and Counseling (many of whom had returned to traditional agency-directed services). Although we encouraged sample members to respond to our surveys themselves, if possible, the use of proxy respondents was

¹² While the Florida demonstration program also included children with developmental disabilities, results for this population are presented in a separate report.

¹³ The response rates equal the number of respondents who completed interviews divided by the number who were eligible to be interviewed. Across all three states, 3 percent of the attempted adult sample refused to be interviewed. Other nonrespondents could not be located or reached even after numerous attempts, at different times of day, over a one month period.

widespread at baseline and at followup (more than 40 percent). Sample statistics are provided in Table 3. For further discussion of proxy respondents, see Appendix A.¹⁴

	Arkansas		New Jersey		Florida	
	Completes	Percent Proxy	Completes	Percent Proxy	Completes	Percent Proxy
Baseline Survey	2,008	49.0	1,755	42.0	1,818	69.5
Nine Month Followup Survey	1,739	59.6	1,465	49.7	1,547	74.5
Nine Month Survey Response Rate	87.3%	--	83.8%	--	85.4%	--

SOURCE: MPR, Inc. The baseline survey was completed between December 1998 and July 2002. The nine month survey was completed between September 1999 and June 2003.
NOTE: Because demonstration participants were required to complete the baseline interview before random assignment, the response rate for the baseline survey was, by definition, 100 percent.

Outcome Measures

Our analysis included objective and subjective outcome measures. To measure service use, we asked consumers factual questions about the types and amounts of PCS received and about their purchases of supplies (Florida only), equipment, and home and vehicle modifications. We also asked factual questions about disability- or health-related adverse events and health problems the beneficiary might have experienced. To measure other components of quality, we inquired about perceptions and opinions regarding: (1) satisfaction with care, (2) unmet needs for PCS (and care supplies), (3) quality of life, (4) general health status, (5) whether the beneficiary or the beneficiary’s family felt knowledgeable about the care to be provided, and (6) the degree of difficulty the beneficiary had with activities of daily living.

¹⁴ Although 4,751 respondents completed nine-month interviews, many of the survey questions used in this analysis were posed only to subsets of respondents. Such restrictions were of four main types:

1. We did not pose questions about consumers’ satisfaction or unmet needs to proxy respondents who were also paid caregivers, because they may not have been able to give objective answers to such questions. This restriction affected the treatment group far more than it did the control group.
2. Questions about satisfaction with paid care received during the given reference periods were not posed to sample members who did not receive such care. This restriction affected the control group more than it did the treatment group in Arkansas and New Jersey.
3. Questions that elicited opinions were not asked if sample members were unable, in general, to form opinions (for example, because of a cognitive impairment) or if proxy respondents did not feel comfortable assessing the sample member’s opinion.
4. Questions about adverse events, health problems, self-care, and quality of life were not posed to the proxies of the sample members who had died. There were 136 such cases in Arkansas, 57 in Florida, and 74 in New Jersey.

Our outcome measures focus on the use of, and satisfaction with, PCS, while ignoring the other waiver benefits that were cashed out only under Florida's program (to ensure comparability of results across all three demonstration states and an acceptable interview length). Appendix Table A.1 presents a complete list of the service use and quality indicators that we examined and identifies the reference periods for which they were measured.

Measures related to PCS use were constructed from the consumer nine month followup survey. Questions about the type and amount of human assistance received referred to the most recent two weeks the consumer was home ("the past two weeks"), because these activities occurred frequently and would be difficult to recall accurately over a longer period. Questions about equipment and supply purchases or home or vehicle modification referred to the nine month period since enrollment, because these events were likely to occur infrequently. See Appendix B for detailed descriptions of the variables.

To assess the quality of personal assistance we used both objective and subjective measures (Kunkel et al. 2002; Benjamin 2001; and Kane et al. 1994). To explore concerns that consumer direction could potentially harm consumers' health, we asked respondents factual questions about disability-related adverse events and health problems.

Estimation of Program Effects

The impact estimates presented in our tables measure the effects of having had the *opportunity* to receive the monthly allowance (by being assigned to the evaluation treatment group) rather than having actually received it. As noted, our results drew on the experiences of all treatment group members, including some who were not receiving the allowance (because they disenrolled from the program or never developed a spending plan) but who were receiving help from other paid sources. Since the program obviously cannot have any effect on people who do not participate, and since the program impacts are concentrated solely on those who do, the effects on actual participants were larger than our estimates show. For example, many survey questions addressed respondents' care during a two week period shortly before the interview. At that point, 83 percent of the 2,424 treatment group members across the three states were receiving help from paid caregivers.¹⁵ Among these recipients were 395 who were disenrolled from Cash and Counseling and another 287 who were not receiving the

¹⁵ Among the 17 percent of treatment group members not receiving help from paid caregivers during the two week reference period, 129 were deceased, 167 were disenrolled, 111 were enrolled but had not hired a paid caregiver, and 13 were not living at home for at least two weeks during the two months before the interview (for example, because of a hospitalization or nursing home stay). Two other treatment group members did not say whether they had paid assistance, and two lived in a group home and were not asked about paid caregivers (because group homes could have paid staff who provide care, and so the questions about paid caregivers could be confusing for the respondent).

monthly allowance at that time. Responses from these program nonparticipants pertained to care from home care agencies and other sources rather than to care purchased with the Cash and Counseling allowance. We did not exclude these nonparticipants from the analysis sample,¹⁶ because to do so could induce unmeasured, preexisting differences between the treatment and control groups.

We used binary logit models to obtain estimates of program impacts for categorical outcome measures. For continuous outcome measures (such as hours of care or Medicaid cost), we used ordinary least squares regression models. Given that demonstration applicants were randomly assigned to the treatment or control group, we could have obtained unbiased impact estimates for most measures simply by comparing the two groups' unadjusted means. However, because members of the two evaluation groups were missing certain types of data and for different reasons (see the discussion below), the resulting groups with data on a particular outcome may have differed on baseline characteristics. Furthermore, a few chance baseline differences arose despite random assignment. Thus we analyzed service use and quality using logit models, which controlled for the sample members' baseline measures of demographic characteristics, health and functioning, use of personal assistance, satisfaction with care and life, unmet needs, reasons for and year of enrollment, work and community activities, whether the sample member used a proxy respondent, and whether he or she appointed a representative. The analyses also controlled for baseline measures of several of the service use and quality outcomes used in this analysis. (Appendix Table A.2 and Table A.3 present a complete list of these baseline characteristics and their treatment and control group means.) Use of these models ensured that any differences between treatment and control groups in these preexisting characteristics that may have arisen by chance or by differentiated nonresponse do not distort our impact estimates and increase the precision of the program's impact estimates.¹⁷

For categorical outcome measures, we measured impacts of Cash and Counseling by using the estimated coefficients from the logit models to calculate average predicted probabilities that the binary dependent variable takes a value of 1, first with each sample member assumed to be in the treatment group and then with each member in the control group. For continuous outcome measures, we measured impacts by calculating the treatment-control difference in predicted means. For both types of models, the *p*-value for the coefficient on the treatment group indicator was used to determine whether the treatment-control group difference was statistically significant. To be conservative, we conducted two-tailed statistical tests, even in cases where we proposed directional hypotheses.

¹⁶ In this report, we use the term “analysis sample” to mean those demonstration participants who responded to the nine month survey.

¹⁷ Because some control variables had unbounded coefficients (owing to perfect classification), it was necessary to drop them from some models. For a handful of outcome measures with a large number of problematic control variables, we used simple t-tests, rather than model adjusted means, to measure treatment-control differences.

We have flagged in the tables all the estimates that are significant at the .10, .05, and .01 levels but discuss in the text only those that are significant at least at the .05 level. In general, those that are significant only at the .10 level are typically either sporadic differences that are probably the result of chance or are estimates for one state where the impact is in the same direction as the other states but is significant at a more stringent level in those other states. In those cases, we interpret the differences that are significant at the .10 level as likely to be true impacts but perhaps smaller for this state than for others.

Many of our outcome measures were derived from survey questions with four-point scales (for example, degree of satisfaction). To reduce the number of parameters estimated and to simplify the presentation and interpretation of results, we converted each four-point scale into two binary measures rather than analyze the scales with multinomial logit models.¹⁸ For each scale, we constructed one measure that was set to 1 only if the respondent gave the most favorable rating (“very satisfied”), with all other ratings set to 0. We constructed a second measure that was set equal to 1 only if the respondent gave an unfavorable rating (“somewhat” or “very dissatisfied”), with all other ratings set to 0. (The moderate rating, “somewhat satisfied,” is not presented separately in our tables.) We then estimated impacts on each of these measures, which enabled us to determine whether those with consumer direction had a higher proportion giving the highest rating, had fewer reporting dissatisfaction, or had both effects.¹⁹ For each outcome, we estimated our models separately for the elderly and nonelderly sample members, since impacts and the relationship of the outcomes to the control variables may differ for the two age groups.²⁰ We estimated impacts for other subgroups by including interaction terms for all the subgroups (including age) in a single model.

Statistical Power

In New Jersey and Florida--where the elderly and nonelderly samples were fairly comparable in size, and each age group was split nearly equally between treatment and

¹⁸ While both impacts could be estimated with one multinomial logit model, such estimates would be less precise because of the relatively large number of parameters estimated. Ordered logit models are designed for such outcome measures but may mask important nonlinear impact patterns. Thus, after examining frequencies and determining that using binary measures would not obscure important findings, we used that approach.

¹⁹ We chose to measure impacts by estimating straightforward binary logit models on individual outcomes rather than by creating and analyzing indexes and combining various measures. We did this for several reasons: (1) the meaning of what is being measured is clearer when responses to actual survey questions are examined, (2) the magnitude of impacts is easier for readers to grasp, (3) indexes assign arbitrary weights to component measures and treat ordinal measures as if they were cardinal, and (4) indexes sometimes mask important effects on component measures.

²⁰ In some instances, we used an alternative model in which the sample was pooled across age groups; an interaction term (age group times treatment status) was used to distinguish impacts for nonelderly and elderly sample members.

control groups--we had 80 percent power to detect impacts of around six percentage points within each age group for binary outcome variables with means of .10 or .90, and impacts of around ten or 11 percentage points for binary outcome variables with means of .50 (assuming two-tailed tests at the .05 significance level) (see Appendix Table A.4). In Arkansas, only one-quarter of the analysis sample (473) was nonelderly, with 1,266 elderly cases. This meant that only larger impacts for the nonelderly age group in Arkansas could be detected with 80 percent power. Slightly smaller effects were detectable in Arkansas than in the other states for the elderly age group.

Characteristics of Respondents at the Nine Month Interview

The study samples in the three states differed considerably on demographic characteristics. In Arkansas, about one-quarter of the sample members were under age 65, and more than one-third were at least 80 years of age. New Jersey's sample was comparatively younger than that of Arkansas--almost half were under age 65, and only 22 percent were 80 years old or older. Florida drew about half its enrollees from the waiver program for adults under age 60 with developmental disabilities, with the majority of these under age 40.

Three-quarters of both the Arkansas and New Jersey samples were female, while less than two-thirds of Florida's adult sample were female. Only 1 percent of the Arkansas sample was of Hispanic origin, 60 percent were White, and one-third were Black. Hispanics comprised more than one-third of New Jersey's sample, about half were White, and about one-third were Black. In the Florida sample, about one-quarter was Hispanic, and over 70 percent were White.

As expected under random assignment, treatment and control group members were similar to each other (Appendix Table A.2 and Table A.3). However, nonelderly and elderly sample members differed considerably on numerous measures and thus were analyzed separately. There were also some marked differences across the three demonstration states in terms of baseline characteristics of sample members within each of the two age groups.

We first examined the effects of consumer direction for nonelderly adults in the three states. In Arkansas and New Jersey, this group included adults with physical disabilities who were ages 18-64 at the time of enrollment. In Florida, the nonelderly group included adults with physical or developmental disabilities or both who were 18-59 years of age at the time of enrollment. The upper age limit for the "nonelderly" differed for Florida, because its Department of Elder Affairs waiver program covers consumers starting at age 60 rather than at age 65. The vast majority (close to 90 percent) of the Florida consumers in this under 60 age group were from the Developmental Services waiver program and therefore had developmental disabilities; the remainder were from the Adult Services program and had physical disabilities.

Nonelderly. In Arkansas, the nonelderly analysis sample was predominantly White, nonHispanic, female, age 40 or older, and had limited education (about half had not graduated from high school) (Table 4). Roughly one-third lived alone, and about two-thirds described their area of residence as either rural²¹ or urban with a high crime rate or poor public transportation, both of which could make the recruitment of caregivers difficult. Many sample members said that they were in poor health and had functional limitations (for example, nearly two-thirds could not get in or out of bed without help). About 60 percent of the nonelderly sample members were receiving publicly funded home care at baseline, including that funded by Medicaid. More than 30 percent were dissatisfied with their care arrangements. Finally, one-quarter of the nonelderly appointed a representative to help manage their PCS if they were assigned to the treatment group.

The pattern was similar for the New Jersey nonelderly sample, with several exceptions: (1) the racial breakdown was more evenly divided between Whites and Blacks, (2) there was a much higher percentage of Hispanics, (3) a much lower percentage lived in rural areas, (4) fewer than half were receiving publicly funded home care at baseline, and (5) by design, no one in New Jersey appointed a representative unless and until he or she was assigned to the treatment group.

The nonelderly sample in Florida was quite different from the comparable samples in Arkansas and New Jersey in many respects, primarily because nearly 90 percent of this sample subgroup consisted of adults with developmental, as opposed to physical, disabilities. The Florida sample members were much more likely to be under the age of 40, more likely to be White, and more likely to have appointed a representative. They were less likely to be female, to live alone, to report being in poor health, and to be dissatisfied with their care arrangements.

Elderly. The elderly sample in Arkansas was also predominantly White, nonHispanic, female, and had limited education (84 percent had not graduated from high school) (Table 5). Half of the elderly Arkansas sample were 80 years old or older. Roughly one-third lived alone, and about two-thirds described their area of residence as either rural or urban with a high crime rate or poor public transportation. Many sample members said that they were in poor health and had functional limitations (for example, nearly two-thirds could not get in or out of bed without help). About 80 percent of the elderly sample members were receiving publicly funded home care at baseline. Only 15 percent were dissatisfied with their care arrangements. Finally, half of the elderly appointed a representative.

²¹ Note that this classification of “rural” is based on the respondent’s own perceptions. We asked if the beneficiary lived “on a farm or in the country.” If the respondent was uncertain, the interviewer was allowed to add, “Do you live in a rural area?”

TABLE 4. Selected Baseline Characteristics of Respondents to the Nine Month Interview of Nonelderly Adults, by State (Percentages)			
Characteristic	Arkansas	New Jersey	Florida
Age in Years			
18-39	27.1	34.9	75.0
40-64 ^a	72.9	65.1	25.0
Female	67.7	65.1	45.4
Race			
White	64.6	49.3	78.8
Black	29.5	43.4	17.2
Other	5.9	7.3	4.0
Of Hispanic Origin	1.1	29.3	21.0
Lives Alone	39.1	34.2	8.8
Did Not Graduate from High School ^b	53.9	47.1	18.1
Area of Residence			
Rural	36.7	9.7	15.4
Nonrural but high crime or lacking adequate public transportation	33.8	49.3	39.7
In Poor Health Relative to Peers	52.6	43.0	15.1
Could Not Get In or Out of Bed Without Help in Past Week	61.1	66.5	50.9
Receiving Publicly Funded Care at Enrollment ^c	59.9	44.4	65.2
Dissatisfied with Overall Care Arrangements, Among Those with Paid Services or Goods in Past Week	36.3	35.3	20.3
Appointed a Representative at Enrollment	27.3	NA ^d	85.6
Number of Respondents	473	682	811

SOURCE: MPR's baseline evaluation interview, conducted between December 1998 and April 2001, for the IndependentChoices program for Arkansas; between November 1999 and July 2002, for the Personal Preference Program for New Jersey; and between June 2000 and July 2002, for the Consumer Directed Care program for Florida.

- a. The samples in Arkansas and New Jersey included individuals age 18-64. The sample used for Florida included individuals age 18-59 to better reflect the feeder programs from which the two age groups came.
- b. For Florida, the percentages reflect the education of those people who would make decisions under Consumer Directed Care, be they demonstration enrollees or their representatives (if the person responding to the interview was the representative). For New Jersey and Arkansas, the percentages reflect the education of demonstration enrollees, regardless of whether they would use a representative in their state's consumer-directed program. See Appendix for description of the imputation procedures used when the education of the decisionmaker was not observed.
- c. For Arkansas, this represents whether they were receiving publicly funded home care at enrollment. For New Jersey, this represents whether they were receiving such care for six months or longer at enrollment. For Florida, this represents whether they were enrolled in the waiver (feeder) program for six months or longer at enrollment.
- d. New Jersey's program did not ask consumers if they wished to name a representative until after they were assigned to the treatment group.

TABLE 5. Selected Baseline Characteristics of Respondents to the Nine Month Interview of Elderly Adults, by State (Percentages)

Characteristic	Arkansas	New Jersey	Florida
Age in Years			
65-79 ^a	49.9	58.0	53.0
80 or older	50.1	42.0	47.0
Female	82.2	80.0	78.7
Race			
White	60.1	59.1	70.3
Black	34.0	30.5	26.4
Other	5.9	10.4	3.3
Of Hispanic Origin	1.1	40.8	34.8
Lives Alone	30.5	36.0	29.1
Did Not Graduate from High School ^b	83.9	69.2	31.4
Area of Residence			
Rural	40.4	11.8	11.0
Nonrural but high crime or lacking adequate public transportation	26.4	38.2	42.7
In Poor Health Relative to Peers	47.1	40.9	37.5
Could Not Get In or Out of Bed Without Help in Past Week	66.9	66.1	65.6
Receiving Publicly Funded Care at Enrollment ^c	79.4	46.9	69.7
Dissatisfied with Overall Care Arrangements, Among Those with Paid Services or Goods in Past Week	14.7	24.9	20.0
Appointed a Representative at Enrollment	48.6	NA ^d	70.8
Number of Respondents	1,266	783	736

SOURCE: MPR's baseline evaluation interview, conducted between December 1998 and April 2001, for the IndependentChoices program for Arkansas; between November 1999 and July 2002, for the Personal Preference Program for New Jersey; and between June 2000 and July 2002, for the Consumer Directed Care program for Florida.

- a. The samples in Arkansas and New Jersey included individuals age 65 and older. The sample used for Florida included individuals age 60 and older to better reflect the feeder programs from which the two age groups came.
- b. For Florida, the percentages reflect the education of those people who would make decisions under Consumer Directed Care, be they demonstration enrollees or their representatives (if the person responding to the interview was the representative). For New Jersey and Arkansas, the percentages reflect the education of demonstration enrollees, regardless of whether they would use a representative in their state's consumer-directed program. See Appendix for description of the imputation procedures used when the education of the decisionmaker was not observed.
- c. For Arkansas, this represents whether they were receiving publicly funded home care at enrollment. For New Jersey, this represents whether they were receiving such care for six months or longer at enrollment. For Florida, this represents whether they were enrolled in the waiver (feeder) program for six months or longer at enrollment.
- d. New Jersey's program did not ask consumers if they wished to name a representative until after they were assigned to the treatment group.

The pattern was similar in the New Jersey elderly sample, with several exceptions: (1) there was a higher percentage of Hispanics, (2) there were fewer sample members without high school diplomas, (3) a much lower percentage lived in rural areas, (4) fewer than half were receiving publicly funded home care at baseline, and (5) by design,

no one in New Jersey appointed a representative at the time he or she enrolled in the demonstration. The elderly sample in Florida was similar to that of New Jersey, with the following two exceptions: (1) Florida had a somewhat higher percentage of white sample members, and (2) most (71 percent) had a representative at baseline.

Proportion of People Actively Participating

We found sizable differences across states in the proportion of treatment group members reporting that they were receiving the allowance when we contacted them nine months after enrollment (Table 6). In Arkansas, among those still living in the community, roughly three-quarters of both elderly and nonelderly treatment group members reported that they had received the monthly allowance in the month of, or preceding, the interview. In New Jersey, 61 percent of both elderly and nonelderly treatment group members still living in the community reported that they had recently received the monthly allowance. The proportion receiving the allowance was lower in Florida than in the other two states for both age groups. For nonelderly treatment group members living in the community, only 54 percent were receiving the monthly allowance when we contacted them at nine months after enrollment. Among the elderly, only 39 percent were receiving the allowance at that time. In New Jersey and Florida, relatively few people had started receiving the allowance but subsequently stopped (for example, because they disenrolled from the program). The vast majority of the people in these two states who were not receiving the monthly allowance at nine months had never started receiving it. We discuss possible reasons for this later in the report.

States differed in how aggressively they tried to get people started on the monthly allowance. In Arkansas, counselors were expected to start people on the allowance within 45 days. About six months into enrollment, a monthly reminder system was set up in Arkansas to let counselors know when an enrollee was 30 days or more past randomization without starting the monthly allowance. Starting people on the allowance in New Jersey and Florida was less urgent, because everyone was already receiving care through (or at least assessed by) an agency at the time of randomization.²²

Across states, several factors were found to be predictive of whether a treatment group member was receiving the monthly allowance nine months after enrollment. Those who said at baseline that a very important factor in deciding to apply for Cash and Counseling was the ability to pay family members or friends to help them were significantly more likely to be receiving the allowance, as were those who said at that time that their primary informal caregiver had expressed an interest in being paid to help, and those whose primary informal caregiver was their child. Those who had

²² New Jersey initially had problems getting people on the monthly allowance in a timely fashion, but steps were later taken to remedy this, such as: (1) moving from a system where the consumer chooses the counselor to one in which the Personal Preference Program coordinator makes a referral, (2) referring new cases to more efficient agencies and counselors, (3) cutting the time between leaving traditional services and notification from 30 to 14 days, and (4) adding a standard for the time for initial contact with the counselor to within 48 hours of referral.

received help with transferring out of bed, with personal care, or with transportation were also more likely to be receiving the allowance at nine months. Those who reported being very satisfied with their paid help at baseline, as well as those who attended adult day care in the prior year, were less likely to be receiving the allowance.

TABLE 6. Monthly Allowance Status of Treatment Group Members at Nine Months						
	Arkansas		New Jersey		Florida	
Nonelderly	n=243		n=345		n=419	
No Longer Living in Community	12		15		13	
Living in Community	231	100%	330	100%	406	100%
Never received allowance ^a	18	8%	108	33%	167	41%
Stopped receiving allowance	35	15%	20	6%	20	5%
Currently receiving allowance	178	77%	202	61%	219	54%
Elderly	n=642		n=402		n=373	
No Longer Living in Community	94		32		31	
Living in Community	548	100%	370	100%	342	100%
Never received allowance ^a	73	13%	129	35%	192	56%
Stopped receiving allowance	80	15%	14	4%	15	4%
Currently receiving allowance	395	72%	227	61%	135	29%
All Treatment Group Members	n=885		n=747		n=792	
No Longer Living in Community	106		47		44	
Living in Community	779	100%	700	100%	748	100%
Never received allowance ^a	91	12%	237	34%	359	48%
Stopped receiving allowance	115	15%	34	5%	35	5%
Currently receiving allowance	573	74%	429	61%	354	47%
SOURCE: MPR's nine month evaluation interview conducted between September 1999 and March 2002 for Arkansas, August 2000 and June 2003 for New Jersey, and March 2001 and May 2003 for Florida.						
NOTE: This table's figures are based on survey responses to questions about the monthly allowance, not on program data about the monthly allowance.						
a. This category includes some people who did not know whether they had received the monthly allowance yes: four in Arkansas, eight in New Jersey, and 14 in Florida.						

RESULTS

In all three states, nearly all recipients of the monthly allowance had at least one paid caregiver in the past two weeks (Table 7). The proportion of recipients using their allowance for other purposes was generally small but varied somewhat across states. For example, 60 people in Arkansas (10 percent of those recently receiving the allowance) reported using the allowance to modify their home at some time since enrollment (for example, installing ramps, grab bars, shower stalls, and elevators; widening doorways, lowering counters, and replacing door knobs with handles). However, few did so in the other two states. The primary use of the allowance besides hiring a worker was to purchase equipment to assist with communication or to increase the consumer's safety (9-13 percent). In Florida, 44 percent used the monthly allowance to purchase personal care supplies.²³

TABLE 7. How Monthly Allowance was Used Among Those Treatment Group Members Recently Receiving Monthly Allowance, by State			
	Arkansas	New Jersey	Florida
Number Recently Receiving Monthly Allowance	577	432	355
Had at Least One Paid Caregiver in Past Two Weeks	557 (97%)	426 (99%)	341 (96%)
Used Monthly Allowance to Modify Home	60 (10%)	10 (2%)	18 (5%)
Used Monthly Allowance to Modify Car or Van	8 (1%)	3 (1%)	3 (1%)
Used Monthly Allowance to Buy, Rent, or Repair Equipment:			
For meal preparation, housekeeping	56 (10%)	29 (7%)	18 (5%)
To help with personal activities, communication, safety ^a	75 (13%)	22 (5%)	32 (9%)
Used Monthly Allowance to Purchase Personal Care Supplies	NA	NA	156 (44%)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and March 2002 for Arkansas, August 2000 and June 2003 for New Jersey, and March 2001 and May 2003 for Florida.			
NOTE: Among the three demonstration states, Florida was the only one that included in the monthly allowance the expected cost for waiver services other than human assistance, such as personal care supplies.			
a. Personal activities, such as getting out of bed, using the toilet, taking a bath, or moving around the house; communication aids such as computers, hearing aids, speech devices, special telephone systems, and flashing lights; safety devices such as personal emergency response and alarm systems.			

²³ Of the three demonstration states, only Florida included in its monthly allowances personal care supplies that were covered under its Medicaid HCBS waiver program. However, consumers in all three states were *allowed* to use their allowance for such purposes.

Nonelderly Adults

Presented in this section are the results for nonelderly adults in all three states. The first discussion centers on treatment-control differences related to the use of services, followed by a discussion of quality indicators such as satisfaction with care and unmet needs. As pointed out earlier, the vast majority (close to 90 percent) of the Florida consumers in this under-60 age group were from the Developmental Services waiver program and therefore had developmental disabilities.

Use of PCS. There were small treatment-control differences, in both directions, in the percentage of sample members still living in the community at the end of nine months (that is, not deceased or living in a nursing home or hospital) (Table 8).²⁴ In all three states, treatment group members still living in the community were significantly more likely than control group members to be receiving paid assistance with PCS. The difference was largest in Arkansas, where only two-thirds of the beneficiaries in the control group were receiving any paid care at followup, whereas about 95 percent of those in the treatment group were receiving such care. Among the nonelderly in the Arkansas control group, a large disparity existed between those who had been receiving personal assistance at the time of enrollment and those who had not been receiving such assistance. (No such disparity was found within the treatment group.) Among those already receiving services at baseline, 78 percent were receiving paid assistance at nine months, whereas only 47 percent of those new to such services were receiving paid assistance at that time. We do not know the reason for this disparity, whether it was the result of induced demand or worker shortages or some other cause.

The differences in the percent of consumers receiving paid assistance were smaller but still sizable (about 12 percentage points) in New Jersey and Florida. More than 90 percent of treatment group members in Arkansas and New Jersey were receiving paid assistance at nine months. The much lower rate in Florida (76 percent) reflected the fact that Florida consumers qualifying for any of the waiver services covered by the allowance were eligible to participate in Cash and Counseling, whereas the Arkansas and New Jersey programs were open only to consumers who were eligible for personal care. (Recall that only about half of Florida's sample members were receiving paid personal care at the time of enrollment in the study.) As might be expected under the Cash and Counseling model, under which people can pay family members to provide personal care, the treatment group was significantly less likely than the control group to have paid visiting caregivers (those who do not live with the consumer) and more likely to have paid live-in caregivers (household members who are paid under the program).

²⁴ People no longer live in the community for a number of reasons. A separate Cash and Counseling report examines nursing home use with more complete data for the full sample.

Followup questions of nonelderly control group members who reported no paid caregivers at nine months in all three states revealed no clear pattern. Some reported having had no paid care in the previous nine months, with some in this group having tried to obtain such care and others not having done so. Others responded that they had had paid caregivers at some point in the previous nine months but no longer wanted the care. And still others said that the agency was unable or unwilling to provide such care.

Outcome	Arkansas (n = 473)			New Jersey (n = 682)			Florida (n = 811)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Lived in the Community ^a	93.1	95.7	-2.6 (.279)	95.9	92.8	3.1* (.084)	96.9	99.0	-2.1** (.039)
Of Those Living in the Community:									
Received paid assistance ^a	94.5	67.8	26.7*** (.000)	91.6	78.7	12.9*** (.000)	76.4	64.2	12.2*** (.000)
Received unpaid assistance ^{a,b}	97.1	95.0	2.1 (.130)	87.9	89.5	-1.6 (.493)	94.8	95.4	-0.6 (.699)
Among Those with Paid Care:									
Had multiple paid caregivers	17.9	36.7	-18.8*** (.000)	30.1	36.0	-5.9 (.127)	52.5	38.9	13.5*** (.001)
Had paid visiting caregivers	75.6	92.3	-16.6*** (.001)	78.0	98.6	-20.6*** (.000)	81.5	98.0	-16.5*** (.000)
Had paid live-in caregivers	28.1	14.6	13.5*** (.003)	29.3	2.2	27.1*** (.000)	35.4	6.1	29.3*** (.000)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and March 2002 for Arkansas, August 2000 and June 2003 for New Jersey, and March 2001 and May 2003 for Florida.</p> <p>NOTES: Means were predicted using logit models. The samples used for Arkansas and New Jersey included individuals ages 18-64. The sample used for Florida included individuals ages 18-59.</p> <p>a. Effects estimated by pooling the two age groups and including an age*treatment status interaction term in the model.</p> <p>b. Effects for Florida were estimated using a simple t-test.</p> <p>*Significantly different from zero at the .10 level, two-tailed test.</p> <p>**Significantly different from zero at the .05 level, two-tailed test.</p> <p>***Significantly different from zero at the .01 level, two-tailed test.</p>									

The relationship between workers and the consumers who hired them was quite similar in Arkansas and New Jersey; it was very different in Florida, however, because the latter state drew most of its nonelderly enrollees from its waiver program for people with developmental disabilities (Table 9). Among treatment group consumers in Arkansas and New Jersey who received an allowance and hired a worker, the proportion hiring children, parents, other relatives, and only unrelated people was roughly equivalent (around one-fourth of consumers in each group). In Florida, on the other hand, very few consumers hired their children (because so few have any children). About one-third of the Florida sample hired a parent, another third hired another relative, and the remaining third hired only unrelated people.

TABLE 9. Who Did Treatment Group Members Hire? Nonelderly (Percentages)			
Outcome	Arkansas	New Jersey	Florida
Percent of Those Receiving Paid Care Who Received Allowance at Nine Months	80.6	66.8	67.5
Percent of Those Receiving Allowance at Nine Months Who Received Paid Care	97.8	99.5	95.0
Among Those Receiving Allowance at Nine Months, Had a Paid Caregiver Who Is Their:			
Spouse	0.0	4.5	1.0
Child	29.3	25.3	1.4
Parent	16.1	20.3	32.7
Other relative	27.6	25.3	35.1
Had only unrelated paid caregivers	27.0	32.7	37.5
Sample Size	174	202	208
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003. Sample is restricted to those with one or more paid caregivers at nine months. Percentages sum to greater than 100 percent because consumers could hire more than one type of caregiver. A small number of consumers residing in group homes are excluded from this table.			

While virtually all nonelderly sample members in all three states who were receiving the monthly allowance had a paid caregiver at nine months, not all who had a paid caregiver at that time were receiving the monthly allowance. In Arkansas, about 80 percent of those receiving paid care were also receiving the allowance; however, in New Jersey and Florida, only about two-thirds of those receiving paid care were also receiving the allowance. This means that Arkansas respondents were referring primarily to the care they purchased with the monthly allowance when asked about their satisfaction with paid care, whereas one-third of responses to the same questions from those in New Jersey and Florida referred to the agency-provided care they were receiving.

The times of day and days of the week that care was received also differed for treatment and control group members. In Arkansas and New Jersey, treatment group members were more likely than those in the control group to be receiving paid assistance with PCS during nonbusiness hours (weekday mornings before 8 a.m., weekday evenings after 6 p.m., or weekends), by about nine percentage points (Table 10). The difference in Florida was somewhat smaller and was limited to a slightly higher percentage receiving care during weekday evenings.

TABLE 10. Estimated Effects of Cash and Counseling on the Timing of Care Received During Past Two Weeks Nonelderly									
	Arkansas (n = 473)			New Jersey (n = 682)			Florida (n = 811)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Received Caregiver Assistance:									
Early week- day morn- ings (before 8 a.m.)	55.1	49.9	5.1 (.207)	60.1	54.4	5.7* (.095)	72.9	75.6	-2.7 (.286)
On weekday evenings (after 6 p.m.)	80.2	75.0	5.2 (.153)	83.2	72.8	10.4*** (.001)	89.0	85.3	3.7* (.060)
On weekends	85.4	79.1	6.3* (.067)	89.6	79.4	10.2*** (.000)	93.4	92.5	0.9 (.594)
On weekday mornings/ evenings or on weekends	90.7	81.8	8.8*** (.006)	90.8	81.7	9.1*** (.000)	95.2	94.4	0.8 (.587)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and March 2002 for Arkansas, March 2001 and May 2003 for Florida; August 2000 and June 2003 for New Jersey.									
NOTES: Means were predicted using logit models. In each state, no more than five cases were lost to item nonresponse for any of these outcomes.									
*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.									

The total hours of personal care received, and the differences in hours received by the treatment and control groups, were not consistent across the three states (Table 11). Nonelderly consumers in Arkansas received substantially fewer total hours of care than did those in New Jersey, who in turn received substantially fewer hours than those in Florida. The total hours of care in Arkansas were significantly lower for treatment group members (by 23 hours) during the two-week period prior to the nine month followup interview as a result of less unpaid care. No such difference was observed in New Jersey or Florida, which had smaller proportions of consumers receiving a monthly allowance. The total number of hours of unpaid care and of live-in care (paid or unpaid) was also significantly lower for treatment group members in Arkansas. In both New Jersey and Florida, treatment group members had significantly more paid hours of care over that two-week period, offsetting the fewer hours of unpaid care they received.²⁵

²⁵ In Arkansas, no difference was found between nonelderly treatment and control group members in terms of the number of hours of paid care received. Nonelderly members of both groups received an average of 23 hours in the two-week reference period. This finding may seem incongruous with the large and statistically significant difference observed in the proportions receiving *no* paid assistance: 5 percent of the treatment group compared to 32 percent of the control group (Table 8). The main reason for the lack of any difference in average hours of paid care despite the much greater proportion of controls with zero hours is the skewed distribution of this variable. In the control group, the six beneficiaries (3 percent of the total) with the highest number of paid care hours all have more hours of paid care than the maximum number of paid hours observed among treatment group members (123 hours), and account for 20 percent of all paid care hours for the Arkansas nonelderly control group. These outlier values alone increase the mean number of paid care hours for the control group by 4 hours. Thus the estimate of no difference in number of paid hours does not represent the program's impact on the typical sample member. It appears that the program may have reduced the need for extremely high amounts of paid care, perhaps as a result of the flexibility offered.

Furthermore, control group members in Arkansas were more likely than treatment group members to be in the Alternatives program (another Medicaid waiver program in Arkansas that allows family members to be paid for

The effect on the distribution of paid hours also differed between states: treatment group consumers in Arkansas and New Jersey were less likely than controls to receive less than an hour per day of care and also less likely to receive more than five hours per day, but they were more likely to receive a moderate amount of paid care. (See Appendix Table A.5.) In Florida, however, those in the treatment group were much more likely to receive five or more hours per day of paid care.

TABLE 11. Estimated Effects of Cash and Counseling on the Hours of Care Received During Past Two Weeks Nonelderly									
Outcome	Arkansas (n = 428)			New Jersey (n = 616)			Florida (n = 726)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Total Hours Paid and Unpaid Care	96.7	119.8	-23.1** (.014)	145.2	149.9	-4.7 (.612)	187.5	188.7	-1.2 (.878)
Paid hours	23.1	23.0	0.2 (.959)	38.8	33.2	5.6** (.023)	39.4	28.9	10.5*** (.000)
Unpaid hours	73.6	96.8	-23.2*** (.008)	106.5	116.7	-10.2 (.242)	148.1	159.8	-11.7 (.130)
Total (Paid and Unpaid) Hours Received from:									
Live-in caregiver for the individual	28.3	32.6	-4.3 (.291)	46.1	42.9	3.2 (.451)	66.4	65.3	1.1 (.789)
Live-in caregiver for household	37.9	47.6	-9.7** (.045)	51.5	53.3	-1.8 (.703)	85.4	89.4	-4.1 (.382)
Visiting caregiver	30.5	39.5	-9.0* (.061)	47.6	53.7	-6.1 (.155)	35.8	34.0	1.8 (.579)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using ordinary least squares regression models. This analysis includes only those with complete data for each component of total hours (about 90 percent of the sample for each state).									
*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.									

Also inconsistent across the three states among the nonelderly were the uses of the allowance other than hiring workers, such as purchasing equipment or modifying the home or car to better accommodate the beneficiary's disability (Table 12). In Arkansas, treatment group members were more likely than controls to obtain equipment for personal use (such as for communication, safety, movement, and bathing/toileting). In New Jersey, treatment group members were more likely to obtain equipment to help with household activities (such as for meal preparation and housekeeping) and less likely to repair equipment they already had. No significant differences (at the .05 level) on these uses of the allowance were found for the nonelderly in Florida.

providing care to adults with disabilities), which also increased the number of paid care hours in the control group. Finally, several other control group members had nonlive-in relatives who were paid for providing care. Because we assumed that any visiting caregivers who were paid received compensation for *all* the hours that consumers said these caregivers provided, the number of paid hours for these relatives is probably overestimated (because they are likely to have provided some of these hours of care without compensation).

TABLE 12. Estimated Effects of Cash and Counseling on Home Modifications and Equipment Purchases or Repairs Nonelderly									
Outcome	Arkansas (n = 471)			New Jersey (n = 677)			Florida (n = 805)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Since Enrollment:									
Modified house	30.1	26.2	3.8 (.338)	17.6	14.3	3.3 (.197)	17.9	23.0	-5.1* (.062)
Modified car or van ^a	2.7	5.1	-2.4 (.131)	4.5	6.9	-2.4 (.211)	5.7	8.8	-3.1* (.090)
Obtained special equipment for meal preparation or house-keeping	20.9	15.6	5.2 (.140)	19.0	12.3	6.6** (.013)	14.8	15.9	-1.1 (.664)
Obtained equipment to help with personal activities/communication	29.3	21.2	8.0** (.043)	24.4	26.1	-1.7 (.573)	27.0	22.9	4.1 (.155)
Repaired equipment used to help client	20.5	17.4	3.0 (.372)	15.1	22.1	-7.0** (.015)	20.2	24.0	-3.7 (.166)
Modified home or vehicle or purchased any equipment or supplies	60.2	49.6	10.7** (.013)	47.4	42.5	4.9 (.149)	65.5	66.2	-0.7 (.797)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Because of slight differences in item nonresponse, sample sizes for some outcomes are smaller than the numbers given here by three or four cases.									
a. Effects were estimated by pooling the two age groups and including an age*treatment interaction term in the model in Arkansas. Effects were estimated for New Jersey using a simple t-test.									
*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.									

Nonelderly treatment group members in Arkansas and New Jersey were significantly more likely than controls to receive assistance with most of the types of care examined, but no such differences were observed in Florida (Appendix Table A.6). Nonelderly treatment group members in Arkansas were much more likely to be receiving help with eating, transferring in and out of bed, toileting, other personal care, shopping, transportation, and “other things around the house or community” (such as yard work or heavy housework). Treatment-control differences in New Jersey were generally smaller but always positive and statistically significant for most outcomes. In Florida, the only significant effect was for assistance with “other things around the house or community.” Although one might have expected treatment group members to use fewer community services (such as Meals-on-Wheels or adult day care) than control group members, Cash and Counseling seemed to have had little effect in either direction on the percentage of nonelderly beneficiaries using many of these services (Appendix Table A.7). In Arkansas, treatment group members were significantly less likely to receive home-delivered meals. In New Jersey, members of the treatment group were significantly less likely to have attended an adult day care center or a recreational program. No significant effects were found for other outcomes or for Florida.

Quality of PCS. While a substantial number of nonelderly beneficiaries in both groups reported having unmet needs for various types of care, treatment group members in all three states were significantly less likely to report having unmet needs (Table 13). Consumers in Arkansas experienced the largest differences in unmet needs, particularly needs related to activities of daily living, household activities, and transportation.

Among the nonelderly in all three states, the treatment group had significantly fewer problems than the control group with their paid caregivers and were significantly more satisfied (Table 14). Generally the differences were largest in Arkansas and smallest in Florida. Treatment group members in Arkansas and New Jersey were much more likely to report that their paid caregivers always completed their tasks, never arrived late or left early, and came as scheduled. Treatment-control differences in Florida were somewhat smaller on some of the measures. In all three states, the treatment group was significantly more likely to be satisfied with their paid caregiver's schedule and, except in New Jersey, believed that they could easily change the schedule, if necessary.

Outcome	Arkansas (n = 439)			New Jersey (n = 637)			Florida (n = 746)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Has an Unmet Need for Help with:									
Daily living activities ^a	25.8	41.0	-15.2*** (.001)	46.1	54.5	-8.4** (.028)	26.7	33.8	-7.1** (.014)
Household activities ^b	41.3	56.0	-14.7*** (.002)	55.7	62.2	-6.5* (.084)	35.5	43.8	-8.2** (.014)
Transportation ^c	27.0	47.2	-20.2*** (.000)	46.2	54.1	-7.9** (.037)	32.2	38.5	-6.3* (.057)
Routine health care ^d	26.6	32.3	-5.7 (.189)	37.0	50.5	-13.6*** (.000)	16.8	23.9	-7.1** (.011)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 25 percent smaller because of difference in item nonresponse and skip patterns.									
a. Daily living activities include eating, dressing, toileting, transferring, and bathing.									
b. Household activities include meal preparation, laundry, housework, and yard work.									
c. Transportation includes trips to and from a doctor's office, shopping, school, work, and recreational activities.									
d. Routine health care includes help with medications, checking blood pressure, and doing exercises.									
*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.									

Nonelderly beneficiaries in the treatment groups of all three states were more likely to report being very satisfied with their relationship with the paid caregivers (Table 15), but only treatment group members in Arkansas and New Jersey gave a better assessment of their caregivers' performance than did members of the control group. In Arkansas and New Jersey, treatment group members were significantly less likely to report that their paid caregivers had neglected them, had been rude or disrespectful, or had taken something from them without asking. The differences were especially large in Arkansas, where the proportion of consumers receiving the allowance was greatest.

TABLE 14. Estimated Effects of Cash and Counseling on Satisfaction with Paid Caregivers' Reliability and Schedule Nonelderly									
Outcome	Arkansas (n = 365)			New Jersey (n = 551)			Florida (n = 467)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Completed Tasks ^a									
Always	62.0	36.8	25.2*** (.000)	52.8	41.0	11.9*** (.005)	53.4	46.9	6.5 (.148)
Usually/ sometimes/ rarely	16.0	38.7	-22.7*** (.000)	25.1	38.1	-13.0*** (.001)	19.6	29.3	-9.7** (.013)
Arrived Late or Left Early									
Never	59.3	37.6	21.8*** (.000)	52.8	35.7	17.1*** (.000)	48.3	39.6	8.7* (.061)
Often	11.4	25.0	-13.6*** (.002)	15.2	30.4	-15.3*** (.000)	13.8	18.1	-4.3 (.202)
Did Not Come as Scheduled ^b	7.7	28.5	-20.9*** (.000)	11.3	24.4	-13.1*** (.000)	14.4	24.5	-10.2*** (.008)
Satisfaction with Caregivers' Schedule ^b									
Very satisfied	85.2	66.9	18.3*** (.000)	73.4	56.8	16.6*** (.000)	83.4	70.9	12.5*** (.002)
Dis- satisfied ^c	2.7	16.4	-13.7*** (.000)	9.1	16.0	-6.9** (.030)	1.5	9.5	-8.0*** (.000)
Could easily change schedule	53.5	41.6	11.8** (.046)	37.2	34.6	2.6 (.562)	47.9	33.9	14.0*** (.003)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 20 percent smaller because of differences in item nonresponse and skip patterns.									
a. This measure is derived from a survey question with a five-point scale. The binary variables shown here represent the most favorable rating (always) and a less favorable one (usually, sometimes, or rarely). The intermediate rating (almost always) is not presented.									
b. Effects were estimated by pooling the two age groups and including an age*treatment status interaction term in the model.									
c. Impacts could not be estimated with the logit model. Results presented are the unadjusted means and treatment-control differences.									
*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.									

Regarding consumers' satisfaction with specific types of care, the nonelderly participants of Cash and Counseling had significantly higher levels of satisfaction across the board (Table 16). In Arkansas and Florida, the treatment group members were significantly more likely to report that they were very satisfied (and less likely to report that they were dissatisfied) with the way their paid caregivers helped with activities of daily living, things around the house and community, routine health care, and the ability to get transportation. In New Jersey, the treatment-control differences were statistically significant for most of these same types of help (with the exception of assistance with routine health care, for which the difference was positive but smaller).

In all three states, treatment group members were much more likely than those in the control group to report that they were very satisfied with their overall care arrangements (Table 17). They were also much less likely to reported being dissatisfied. Dissatisfaction with care virtually disappeared for the treatment group members in Arkansas and Florida, compared to rates of 31 and 18 percent, respectively, for the control groups in those states. In New Jersey, the treatment group's dissatisfaction rate was half that of the control group. Furthermore, in all three states, the treatment group members were significantly more likely than members of the control group to report being very satisfied with how they were spending their lives

these days and significantly less likely to report being dissatisfied. These effects were very large, ranging from 13 to 21 percentage points.

TABLE 15. Estimated Effects of Cash and Counseling on Quality of Care Provided by Paid Caregivers and Relationship Nonelderly									
Outcome	Arkansas (n = 374)			New Jersey (n = 586)			Florida (n = 564)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Satisfaction with Relationship ^a									
Very satisfied	95.0	78.5	16.5*** (.000)	89.7	78.4	11.4*** (.001)	94.4	83.2	11.1*** (.002)
Dis-satisfied ^b	1.1	6.6	-5.5*** (.007)	2.0	2.7	-0.8 (.575)	1.5	3.0	-1.5 (.295)
Paid Caregivers:									
Neglected client	14.1	33.5	-19.4*** (.000)	20.9	33.6	-12.6*** (.001)	18.6	22.8	-4.2 (.247)
Were rude or dis-respectful	10.5	29.5	-18.9*** (.000)	18.7	30.1	-11.4*** (.002)	16.5	18.0	-1.4 (.671)
Took something without asking ^{a,b}	1.7	4.4	-2.7** (.040)	6.1	11.2	-5.1** (.037)	5.3	7.1	-1.7 (.395)
Gave unwanted help ^a	40.2	36.9	3.3 (.521)	34.8	42.6	-7.8* (.064)	38.6	34.7	3.8 (.382)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.</p> <p>NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 28 percent smaller because of differences in item nonresponse and skip patterns.</p> <p>a. Effects were estimated by pooling the two age groups and including an age*treatment status interaction term in model.</p> <p>b. Some impacts could not be estimated with the logit model. Results presented for one or more states are the unadjusted means and treatment-control differences.</p> <p>*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.</p>									

As mentioned earlier, one of the concerns about Cash and Counseling was the risk associated with caregivers not being required to receive formal training or supervision in care provision, which could increase the incidence of health problems and injuries. Not only did we find no outcomes for which the treatment group had higher rates of adverse events, but for some measures the treatment group members reported significantly *fewer* of these problems than did those in the control group (Table 18). In Arkansas, the nonelderly treatment group members were significantly less likely than control group members to report the development (or worsening) of shortness of breath and less likely to report the development (or worsening) of bedsores. In New Jersey, the treatment group members were significantly less likely to report falls, problems with shortness of breath, or respiratory infections. In Florida, treatment group members were less likely to report having seen a doctor because of a fall, less likely to report having a urinary tract infection, and less likely to report problems with contractures. New Jersey and Florida treatment group members were also less likely than controls to report that their health was poor and, in New Jersey, less likely to report being admitted to a hospital or nursing home.

TABLE 16. Estimated Effects of Cash and Counseling on Paid Caregiver Performance and Transportation Assistance Nonelderly									
Outcome	Arkansas (n = 400)			New Jersey (n = 552)			Florida (n = 518)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
How Satisfied with the Way Paid Caregivers Helped with Daily Living Activities in Recent Two Weeks ^a									
Very satisfied ^b	95.9	75.7	20.2*** (.000)	82.8	69.6	13.2*** (.001)	92.0	65.4	26.6*** (.000)
Dis-satisfied ^e	0.6	10.8	-10.3*** (.000)	2.0	8.5	-6.4*** (.002)	1.2	6.5	-5.4** (.012)
How Satisfied with the Way Paid Caregivers Helped Around the House/Community in Recent Two Weeks ^c									
Very satisfied	90.4	64.0	26.4*** (.000)	84.4	66.0	18.4*** (.000)	85.4	70.9	14.5*** (.001)
Dis-satisfied ^e	1.6	14.9	-13.2*** (.000)	3.6	5.3	-1.7 (.363)	2.2	9.8	-7.6*** (.003)
How Satisfied with the Way Paid Caregivers Helped with Routine Health Care in Recent Two Weeks ^d									
Very satisfied ^{b,e}	92.2	74.7	17.5*** (.000)	86.5	80.9	5.6 (.153)	91.8	79.3	12.5*** (.007)
Dis-satisfied ^e	1.4	13.4	-12.0*** (.000)	1.9	1.7	0.2 (.889)	0.0	2.7	-2.7* (.069)
How Satisfied with Ability to Get Help with Transportation When Needed									
Very satisfied	72.2	42.5	29.7*** (.000)	54.3	39.9	14.4*** (.001)	69.6	55.8	13.7*** (.001)
Dis-satisfied	12.0	32.3	-20.3*** (.000)	20.4	30.7	-10.3*** (.005)	13.4	19.8	-6.4** (.040)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTE: Means were predicted using logit models. Sample sizes for some variables in this model were up to 56 percent smaller because of differences in item nonresponse and skip patterns.									
a. Daily living activities include eating, dressing, toileting, transferring, and bathing.									
b. Effects were estimated by pooling the two age groups and including an age*treatment status interaction term in the model.									
c. Help doing things around the house/community does not include help with transportation.									
d. Routine health care activities include help with medications, checking blood pressure, and doing exercises.									
e. Some impacts could not be estimated with the logit model. Results presented for one or more states are the unadjusted means and treatment-control differences.									
*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 17. Estimated Effects of Cash and Counseling on Satisfaction with Care Arrangements and with Life Nonelderly									
Outcome	Arkansas (n = 409)			New Jersey (n = 558)			Florida (n = 564)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
How Satisfied with Overall Care Arrangements ^a									
Very satisfied	71.0	41.9	29.2*** (.000)	51.9	35.0	16.9*** (.000)	68.2	48.0	20.2*** (.000)
Dis-satisfied	6.0	31.4	-25.4*** (.000)	14.1	27.8	-13.7*** (.000)	6.0	18.0	-12.1*** (.000)
How Satisfied with the Way Spending Life These Days									
Very satisfied	43.4	22.9	20.5*** (.000)	37.5	21.0	16.5*** (.000)	63.5	50.2	13.3*** (.001)
Dis-satisfied	24.1	46.9	-22.7*** (.000)	31.0	50.4	-19.4*** (.000)	12.5	23.3	-10.8*** (.000)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models.									
a. Includes arrangements for unpaid and paid help with personal care, activities around the house and community, routine health care, community services, transportation, and for use of care-related 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.									

TABLE 18. Estimated Effects of Cash and Counseling on Adverse Health Outcomes Nonelderly									
Outcome	Arkansas (n = 462)			New Jersey (n = 668)			Florida (n = 808)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Adverse Events in Past Month									
Fell	28.4	28.7	-0.4 (.931)	18.7	28.0	-9.3*** (.004)	14.5	17.5	-3.0 (.235)
Saw a Doctor Because of a Fall ^a	4.4	4.1	0.3 (.849)	5.4	7.9	-2.5 (.185)	2.5	6.1	-3.6** (.020)
Saw a Doctor Because of a Cut, Burn, or Scald ^b	1.3	4.0	-2.7* (.070)	4.5	4.6	-0.2 (.926)	2.4	3.3	-0.9 (.425)
Was Injured While Receiving Paid Help ^b	0.9	2.3	-1.4 (.221)	2.7	4.4	-1.6 (.256)	4.0	3.6	0.4 (.779)
Health Problems in Past Month									
Shortness of Breath Developed or Worsened	29.8	39.7	-10.0** (.016)	33.9	41.3	-7.5** (.023)	8.9	9.6	-0.7 (.710)
Had a Respiratory Infection	31.4	32.1	-0.7 (.872)	24.9	32.2	-7.3** (.028)	18.0	16.0	2.0 (.439)
Contractures Developed or Worsened	26.0	25.2	0.8 (.826)	24.5	28.1	-3.7 (.269)	9.0	14.0	-5.0** (.021)
Had a Urinary Tract Infection	19.4	21.6	-2.2 (.560)	16.6	19.4	-2.8 (.329)	7.7	11.7	-4.0** (.043)
Bedsore Developed or Worsened ^a	5.9	12.6	-6.7** (.012)	9.0	13.0	-4.1* (.094)	4.1	5.9	-1.8 (.252)
General Health Status									
Current Health is Poor Relative to Peers ^a	56.4	53.5	2.9 (.476)	41.2	46.9	-5.7* (.072)	13.3	17.7	-4.3** (.040)
Spent Night in Hospital or Nursing Home in Past Two Months	16.6	15.9	0.7 (.842)	18.0	23.6	-5.5* (.061)	7.7	8.2	-0.5 (.782)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.</p> <p>NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 4 percent smaller because of differences in item nonresponse and skip patterns.</p> <p>a. Effects were estimated by pooling the two age groups and including an age*treatment interaction term in the model.</p> <p>b. Impacts could not be estimated with the logit model. Results presented are the unadjusted means and treatment-control differences.</p> <p>*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.</p>									

Elderly Adults

While people with disabilities have long argued for greater control over the care they receive, some advocates for the elderly have been concerned that frail older individuals may not be able to manage their own care effectively and safely, and may be at risk for elder abuse. Cash and Counseling tested this assumption by offering the program to adults with disabilities in Arkansas and New Jersey who were age 65 or older at the time of enrollment, and to frail adults in Florida who were age 60 or older when they enrolled.

We found that, in general, the effects on the use of personal care and satisfaction with care for the elderly were similar to, though slightly lesser than, the effects for the nonelderly in Arkansas and New Jersey; but we found few effects on both elderly and nonelderly adults in Florida. The lack of significant effects is attributed to the fact that only 59 percent of nonelderly, and only 43 percent of elderly, treatment group members in Florida had started receiving their monthly allowance by the time of the nine month interview, as Table 6 illustrates.

Use of PCS. There were no significant differences in the percentage of elderly adults still living in the community at nine months. Similar to the findings for the nonelderly adults, elderly Cash and Counseling treatment group members were significantly more likely than elderly controls to be receiving paid assistance with PCS in Arkansas and New Jersey (Table 19). However, we found only a small and statistically insignificant treatment-control difference in Florida. The results across states differed because only 80 percent of the controls in Arkansas and New Jersey received paid assistance at nine months, whereas 91 percent of controls in Florida did.

As was the case for the nonelderly control group in Arkansas, a large disparity among the elderly controls in Arkansas existed between those who had been receiving personal assistance at the time of enrollment and those who had not been receiving such assistance. Among those already receiving services at baseline, 89 percent were receiving paid assistance at nine months, whereas only 47 percent of those new to such services were receiving paid assistance at nine months.

No clear pattern emerged from our followup questions of elderly control group members in all three states who reported no paid caregivers at nine months. Some reported having had no paid care in the previous nine months; of these, some had tried to obtain such care while others had not. Still others reported that they had had paid care at some point in the previous nine months but were no longer eligible for such care. And some reported that the agency was unable or unwilling to provide such care.

Among the elderly receiving an allowance at the time of the followup survey, the proportion of treatment group members hiring relatives varied widely, ranging from 62 percent in Florida to 79 percent in Arkansas (Table 20). In Arkansas and New Jersey, among the beneficiaries who used the monthly allowance to hire a caregiver, slightly more than half (57 percent) hired their child, about one-fourth hired another relative, and

the remaining fourth hired only nonrelatives. In Florida, slightly fewer than half the beneficiaries (46 percent) hired their child with the monthly allowance, one-fourth hired another relative (including a spouse), and 38 percent hired only nonrelatives. (Recall that the sum of percentages can be greater than 100 percent, because consumers could hire more than one type of caregiver.)

TABLE 19. Estimated Effects of Cash and Counseling on Likelihood of Living in the Community and Receiving Assistance During Past Two Weeks Elderly									
Outcome	Arkansas (n = 1,266)			New Jersey (n = 783)			Florida (n = 736)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Lived in the Community ^{a,b}	86.1	87.8	-1.7 (.354)	91.3	92.3	-1.0 (.610)	91.2	91.4	-0.2 (.923)
Of Those Living in the Community									
Received paid assistance ^a	94.2	78.8	15.4*** (.000)	93.9	81.9	12.0*** (.000)	94.0	91.2	2.8 (.176)
Received unpaid assistance ^{a,b}	93.7	90.5	3.2* (.067)	88.8	91.7	-2.9 (.139)	94.3	92.4	1.9 (.328)
Among Those with Paid Care									
Had multiple paid caregivers	39.7	36.3	3.4 (.264)	22.0	28.3	-6.3* (.068)	48.1	41.6	6.5* (.094)
Had paid visiting caregivers	74.9	98.1	-23.2*** (.000)	75.1	99.6	-24.5*** (.000)	86.9	97.5	-10.6*** (.000)
Had paid live-in caregivers	37.9	3.4	34.5*** (.000)	29.8	0.8	29.1*** (.000)	27.8	11.1	16.7*** (.000)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and March 2002 for Arkansas, August 2000 and June 2003 for New Jersey, and March 2001 and May 2003 for Florida.</p> <p>NOTES: Means were predicted using logit models. The samples used for Arkansas and New Jersey included individuals ages 65 and older. The sample used for Florida included individuals ages 60 and older.</p> <p>a. Effects estimated by pooling the two age groups and including an age*treatment status interaction term in the model.</p> <p>b. Effects for Florida were estimated using a simple t-test.</p> <p>*Significantly different from zero at the .10 level, two-tailed test.</p> <p>**Significantly different from zero at the .05 level, two-tailed test.</p> <p>***Significantly different from zero at the .01 level, two-tailed test.</p>									

As with the nonelderly sample, virtually all elderly beneficiaries who were receiving the allowance at nine months also had a paid caregiver at that time; however, among those with a paid caregiver at nine months, many were not receiving the allowance. In Arkansas, about one-quarter of those with a paid caregiver were not receiving the allowance at nine months; in New Jersey, about one-third of those with paid caregivers were not receiving the allowance; and in Florida, more than half of those with paid caregivers were not receiving the allowance. Consequently, in all three states, many of the responses to questions about the satisfaction with paid care in the treatment group actually referred to agency-provided care rather than care purchased with the monthly allowance.

Cash and Counseling had essentially no effect on the time of day or week that caregivers provided assistance to elderly beneficiaries in all three states. In Arkansas, those in the treatment group were slightly more likely than controls to receive paid assistance with PCS on weekday evenings. No significant treatment-control differences

were found in the percentage receiving care early on weekday mornings, or on weekends, in any of the three states (Table 21).

Impacts on the total hours of PCS care for elderly beneficiaries were not consistent across the three states (Table 22; Appendix Table A.8). In Arkansas and New Jersey, the number of hours of paid care were significantly higher for treatment group members than for controls (about five hours for control group members in Arkansas and eight hours for those in New Jersey) during the two-week period prior to the followup interview; the treatment group in Florida, however, actually received slightly fewer hours of paid care than the control group. The number of hours of unpaid care were lower for treatment group members in all three states, by roughly the same amount (14-18 hours). While the higher number of paid hours mostly offset the fewer number of unpaid hours in Arkansas and New Jersey (as it did for all three states among the nonelderly), in Florida there were significantly fewer overall hours of care for treatment group members during that two-week period.

TABLE 20. Who Did Treatment Group Members Hire? Elderly (Percentages)			
Outcome	Arkansas	New Jersey	Florida
Percent of Those Receiving Paid Care Who Received Allowance at Nine Months	74.4	65.2	41.4
Percent of Those Receiving Allowance at Nine Months Who Received Paid Care	96.7	99.1	98.5
Among Those Receiving Allowance at Nine Months, Had a Paid Caregiver Who Is Their:			
Spouse	0.0	0.9	5.3
Child	56.7	56.8	45.9
Parent	0.3	0.4	0.0
Other relative	24.0	21.2	21.1
Had Only Unrelated Paid Caregivers	20.9	24.7	38.4
Sample Size	333	227	133
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003. Sample is restricted to those with one or more paid caregivers at nine months. Percentages sum to greater than 100 percent because consumers could hire more than one type of caregiver. A small number of consumers residing in group homes are excluded from this table.			

TABLE 21. Estimated Effects of Cash and Counseling on the Timing of Care Received During Past Two Weeks Elderly									
	Arkansas (n = 1,265)			New Jersey (n = 783)			Florida (n = 736)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Received Caregiver Assistance:									
Early week-day mornings (before 8 a.m.)	57.8	56.0	1.8 (.498)	51.4	55.8	-4.4 (.174)	54.8	59.6	-4.8 (.133)
On weekday evenings (after 6 p.m.)	73.2	68.3	5.0** (.046)	72.3	73.9	-1.6 (.548)	75.4	73.3	2.2 (.445)
On weekends	78.2	76.2	1.9 (.406)	82.9	81.8	1.1 (.657)	83.5	80.0	3.5 (.190)
On weekday mornings/evenings or on weekends	80.2	78.2	1.9 (.392)	84.9	83.3	1.5 (.536)	85.2	82.4	2.8 (.286)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and March 2002 for Arkansas; March 2001 and May 2003 for Florida; August 2000 and June 2003 for New Jersey.									
NOTES: Means were predicted using logit models. In each state, no more than five cases were lost to item nonresponse for any of these outcomes.									
*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 22. Estimated Effects of Cash and Counseling on the Hours of Care Received During Past Two Weeks Elderly									
Outcome	Arkansas (n = 1,111)			New Jersey (n = 680)			Florida (n = 619)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Total Hours Paid and Unpaid Care	124.0	133.3	-9.4 (.185)	133.2	142.9	-9.7 (.283)	139.9	158.4	-18.6** (.042)
Paid hours	22.7	18.2	4.5*** (.001)	39.1	31.2	7.9*** (.000)	28.0	32.9	-4.9 (.140)
Unpaid hours	101.3	115.1	-13.8** (.036)	94.2	111.7	-17.6** (.034)	111.8	125.6	-13.7 (.109)
Total (Paid and Unpaid) Hours Received From:									
Live-in caregiver for the individual	39.5	40.7	-1.2 (.703)	40.3	40.6	-0.3 (.936)	49.6	53.9	-4.3 (.324)
Live-in caregiver for household	54.0	54.7	-0.8 (.836)	49.2	50.3	-1.1 (.802)	56.2	63.6	-7.4 (.134)
Visiting caregiver	30.5	38.0	-7.4** (.018)	43.8	52.0	-8.3** (.037)	34.0	40.9	-6.9* (.087)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using ordinary least squares regression models. This analysis includes only those with complete data for each component of total hours (about 90 percent of the sample for each state).									
*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.									

In Arkansas and Florida, we found no statistically significant treatment-control differences in the proportion of elderly sample members using their allowances either to purchase equipment or to modify their home or car in order to better accommodate their disability (Table 23). In New Jersey, however, elderly treatment group members were significantly more likely to obtain special equipment for meal preparation and housekeeping, less likely to repair equipment that they already had, and more likely to

make any of these modifications or purchases. We also observed no impacts related to the types of assistance received, such as help with eating, transferring in and out of bed, toileting, other personal care, shopping, meal preparation, transportation, and “other things around the house or community.” Of the 12 measures examined for each state, only one significant treatment-control difference was observed in Arkansas (assistance with routine health care), only one in Florida (assistance with other things around the house and community), and none in New Jersey (Appendix Table A.9). Thus these differences were probably owing to chance.

Outcome	Arkansas (n = 1,259)			New Jersey (n = 778)			Florida (n = 727)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Since Enrollment:									
Modified house	28.0	25.0	3.0 (.223)	17.7	14.2	3.5 (.168)	28.2	25.2	3.0 (.356)
Modified car or van ^a	3.6	2.5	1.1 (.299)	4.6	6.8	-2.2 (.271)	4.9	4.7	0.2 (.895)
Obtained special equipment for meal preparation or house-keeping	12.7	12.9	-0.2 (.901)	19.0	12.3	6.7** (.012)	16.8	18.1	-1.3 (.637)
Obtained equipment to help with personal activities/communication	28.3	31.2	-2.8 (.263)	26.4	25.1	1.3 (.686)	29.1	31.3	-2.2 (.506)
Repaired equipment used to help client	12.3	13.1	-0.8 (.665)	7.8	12.4	-4.5** (.039)	19.1	16.6	2.5 (.381)
Modified home or vehicle or purchased any equipment or supplies	55.0	54.5	0.5 (.855)	47.4	42.6	4.8** (.039)	78.2	81.1	-2.9 (.300)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.</p> <p>NOTES: Means were predicted using logit models. Because of slight differences in item nonresponse, sample sizes for some outcomes are smaller than the numbers given here by up to 12 cases.</p> <p>a. Effects were estimated by pooling the two age groups and including an age*treatment interaction term in the model in Arkansas. Effects were estimated for New Jersey using a simple t-test.</p> <p>*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.</p>									

Cash and Counseling also seemed to have little or no impact in any of the three states on the percentage of elderly beneficiaries using other types of services, such as attending adult day care, receiving home-delivered meals, and using transportation services (Appendix Table A.10). Of the eight measures examined, we found statistically significant treatment-control differences for only one or two in each state. Treatment group members in Florida were significantly and substantially less likely than controls to use adult day care centers or to receive home-delivered meals.

Quality of PCS. While a substantial number of elderly beneficiaries in both groups reported having unmet needs, treatment group members were significantly less likely than controls to do so (Table 24). The elderly in New Jersey showed the largest impacts of Cash and Counseling in reducing unmet needs, particularly needs related to activities of daily living, household activities, transportation, and routine health care at home. Arkansas saw significant impacts in reducing unmet needs related only to household activities and transportation. Just one type of unmet need (help with household activities) was found to have been significantly impacted for the elderly in Florida.

Elderly treatment group members in Arkansas and New Jersey had significantly fewer problems with their paid caregivers than did those in the control group (Table 25). In these states, elderly treatment group members were much more likely than controls to report that their paid caregivers always completed tasks and came to work as scheduled. Furthermore, in Arkansas, treatment group members were far more likely to report that their caregivers never arrived late or left early. In Arkansas and New Jersey, the treatment group also was significantly and substantially more likely to be satisfied with the times of day or week that their paid caregivers came to work and, in New Jersey, felt that they could easily change the schedule if necessary. No significant findings were found along these lines for the elderly in Florida, perhaps reflecting the low proportion of treatment group consumers actually receiving the allowance in that state.

TABLE 24. Estimated Effects of Cash and Counseling on Unmet Needs Elderly									
Outcome	Arkansas (n = 1,048)			New Jersey (n = 680)			Florida (n = 625)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Has an Unmet Need for Help with:									
Daily living activities ^a	35.9	36.5	-0.7 (.823)	44.1	57.7	-13.7*** (.000)	42.8	46.5	-3.7 (.336)
Household activities ^b	38.1	47.2	-9.1*** (.003)	51.0	67.5	-16.5*** (.000)	47.2	53.9	-6.7* (.085)
Transportation ^c	29.0	36.5	-7.5*** (.009)	38.9	53.8	-14.9*** (.000)	39.7	41.8	-2.1 (.560)
Routine health care ^d	29.2	32.3	-3.1 (.285)	35.1	46.7	-11.6*** (.001)	35.1	36.9	-1.8 (.626)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 16 percent smaller because of differences in item nonresponse and skip patterns.									
a. Daily living activities include eating, dressing, toileting, transferring, and bathing.									
b. Household activities include meal preparation, laundry, housework, and yard work.									
c. Transportation includes trips to and from a doctor's office, shopping, school, work, and recreational activities.									
d. Routine health care includes help with medications, checking blood pressure, and doing exercises.									
*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 25. Estimated Effects of Cash and Counseling on Satisfaction with Paid Caregivers' Reliability and Schedule Elderly									
Outcome	Arkansas (n = 852)			New Jersey (n = 576)			Florida (n = 519)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Completed Tasks ^a									
Always	65.8	47.2	18.7*** (.000)	66.3	50.5	15.8*** (.000)	45.2	48.8	-3.5 (.385)
Usually/ sometimes/ rarely	15.4	36.2	-20.9*** (.000)	21.3	36.7	-15.4*** (.000)	28.8	32.1	-3.3 (.397)
Arrived Late or Left Early									
Never	56.3	36.0	20.3*** (.000)	54.1	46.1	8.0* (.055)	40.9	41.4	-0.6 (.891)
Often	9.4	19.3	-9.8*** (.000)	15.8	19.7	-3.9 (.245)	19.2	18.2	1.1 (.757)
Did Not Come as Scheduled ^b	17.7	30.1	-12.4*** (.000)	9.7	18.0	-8.3*** (.006)	20.9	20.1	0.8 (.824)
Satisfaction with Caregivers' Schedule ^b									
Very satisfied	82.9	68.7	14.2*** (.000)	68.9	54.1	14.8*** (.001)	66.0	61.0	5.0 (.260)
Dis- satisfied ^c	5.1	8.1	-3.1 (.102)	9.4	18.1	-8.7*** (.007)	6.0	8.5	-2.5 (.317)
Could easily change schedule	47.8	45.1	2.6 (.497)	47.3	35.5	11.8** (.010)	35.4	39.9	-4.5 (.345)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 21 percent smaller because of differences in item nonresponse and skip patterns.									
a. This measure is derived from a survey question with a five-point scale. The binary variables shown here represent the most favorable rating (always) and a less favorable one (usually, sometimes, or rarely). The intermediate rating (almost always) is not presented.									
b. Effects were estimated by pooling the two age groups and including an age*treatment status interaction term in the model.									
c. Impacts could not be estimated with the logit model. Results presented are the unadjusted means and treatment-control differences.									
*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.									

In all three states, elderly beneficiaries in the treatment group were significantly more likely than controls to report that they were very satisfied with their relationship with their paid caregivers (Table 26). Furthermore, treatment group members in Arkansas and New Jersey were significantly less likely to report that these caregivers had neglected them and, in Arkansas, that caregivers had taken something from them without asking.

With regard to elderly enrollees' satisfaction with specific types of care, the Cash and Counseling group reported significantly greater satisfaction than controls for all the measures examined in Arkansas and New Jersey but not in Florida (Table 27). The treatment group members were significantly more likely than controls to report that they were very satisfied with (and less likely to report being dissatisfied with) the way their paid caregivers helped with activities of daily living, things around the house and community, routine health care, and the ability to obtain transportation. These differences were somewhat larger in New Jersey than in Arkansas. No significant treatment-control differences in satisfaction with specific types of care were found in Florida.

In Arkansas and New Jersey, treatment group members were significantly more likely to have reported being very satisfied with their overall care arrangements and

significantly less likely to have reported that they were dissatisfied (Table 28). In Arkansas, 68 percent of the elderly treatment group members reported that they were very satisfied, whereas only 54 percent of the control group did so. In New Jersey, 57 percent of treatment group members reported being very satisfied compared to 37 percent of those in the control group. In Florida, the difference between the groups was positive but much smaller and not statistically significant. Furthermore, in all three states, the treatment group members were significantly more likely than controls to report being very satisfied with how they were spending their lives these days and less likely to report being dissatisfied. The differences in the percent who were very satisfied were large (about 20 percentage points) in Arkansas and New Jersey and smaller but still significant in Florida.

Examining the impact of Cash and Counseling on adverse health outcomes and injuries, we found no measures for which the incidence of problems was significantly greater for the treatment group and a few measures for which the treatment group was significantly *less* likely to report such problems (Table 29). In New Jersey, the elderly treatment group members were significantly less likely to report having fallen and having problems with contractures. In Florida, the treatment group members were significantly less likely to report problems with shortness of breath. No significant impacts were found in Arkansas on these dimensions.

Outcome	Arkansas (n = 946)			New Jersey (n = 637)			Florida (n = 592)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Satisfaction with relationship ^a									
Very satisfied	92.2	82.8	9.4*** (.000)	87.2	72.8	14.4*** (.000)	89.5	81.8	7.7** (.023)
Dis-satisfied ^b	0.0	1.2	-1.2** (.021)	1.6	4.8	-3.2** (.047)	0.9	1.7	-0.8 (.470)
Paid Caregivers:									
Neglected client	10.9	26.2	-15.3*** (.000)	15.7	22.7	-7.0** (.032)	24.0	22.8	1.2 (.732)
Were rude or disrespectful	11.8	16.4	-4.7* (.051)	15.4	20.0	-4.6 (.130)	15.6	19.7	-4.1 (.228)
Took something without asking ^{a,b}	4.1	7.7	-3.6** (.033)	5.5	5.5	0.0 (.962)	4.2	6.9	-2.7 (.152)
Gave unwanted help ^a	30.8	34.2	-3.4 (.898)	33.0	36.9	-3.9 (.306)	26.0	31.4	-5.4 (.171)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 25 percent smaller because of differences in item nonresponse and skip patterns.									
a. Effects were estimated by pooling the two age groups and including an age*treatment interaction term in the model.									
b. Some impacts could not be estimated with the logit model. Results presented for one or more states are the unadjusted means and treatment-control differences.									
*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 27. Estimated Effects of Cash and Counseling on Paid Caregiver Performance and Transportation Assistance Elderly									
Outcome	Arkansas (n = 881)			New Jersey (n = 566)			Florida (n = 464)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
How Satisfied with the Way Paid Caregivers Helped with Daily Living Activities in Recent Two Weeks ^a									
Very satisfied ^b	84.6	75.7	8.9*** (.003)	79.9	60.0	19.9*** (.000)	73.5	69.1	4.4 (.355)
Dis-satisfied ^e	1.9	4.8	-2.8** (.049)	3.0	7.2	-4.1** (.046)	4.5	5.6	-1.1 (.632)
How Satisfied with the Way Paid Caregivers Helped Around the House/Community in Recent Two Weeks ^c									
Very satisfied	87.3	68.3	19.0*** (.000)	78.9	58.8	20.1*** (.000)	70.4	66.1	4.3 (.351)
Dis-satisfied ^e	2.8	7.6	-4.7*** (.007)	2.1	9.1	-7.1*** (.001)	5.3	6.2	-0.8 (.719)
How Satisfied with the Way Paid Caregivers Helped with Routine Health Care in Recent Two Weeks ^d									
Very satisfied ^{b,e}	92.1	78.3	13.8*** (.000)	83.5	66.6	16.9*** (.001)	84.2	76.0	8.2 (.144)
Dis-satisfied ^e	1.0	2.5	-1.5 (.212)	1.0	3.6	-2.6* (.080)	3.0	3.9	-0.9 (.730)
How Satisfied with Ability to Get Help with Transportation When Needed									
Very satisfied	73.7	63.6	10.1*** (.001)	55.0	41.7	13.3*** (.001)	52.4	52.3	0.1 (.989)
Dis-satisfied	7.8	13.8	-6.0*** (.005)	13.5	29.5	-16.1*** (.000)	14.5	20.3	-5.8 (.102)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTE: Means were predicted using logit models. Sample sizes for some variables in this model were up to 56 percent smaller because of differences in item nonresponse and skip patterns.									
a. Daily living activities include eating, dressing, toileting, transferring, and bathing.									
b. Effects were estimated by pooling the two age groups and including an age*treatment status interaction term in the model.									
c. Help doing things around the house/community does not include help with transportation.									
d. Routine health care activities include help with medications, checking blood pressure, and doing exercises.									
e. Impacts could not be estimated with the logit model. Results presented are the unadjusted means and treatment-control differences.									
*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 28. Estimated Effects of Cash and Counseling on Satisfaction with Care Arrangements and with Life Elderly									
Outcome	Arkansas (n = 872)			New Jersey (n = 574)			Florida (n = 491)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
How Satisfied with Overall Care Arrangements ^a									
Very satisfied	68.3	54.0	14.3*** (.000)	56.5	36.6	19.9*** (.000)	50.0	46.9	3.1 (.463)
Dis-satisfied	6.2	10.4	-4.3** (.026)	9.0	21.5	-12.5*** (.000)	11.5	14.0	-2.5 (.394)
How Satisfied with the Way Spending Life These Days									
Very satisfied	55.5	37.0	18.5*** (.000)	47.1	25.3	21.9*** (.000)	35.9	27.9	8.0** (.049)
Dis-satisfied	17.0	25.3	-8.3*** (.004)	19.7	36.2	-16.5*** (.000)	31.6	33.2	-1.6 (.678)
SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.									
NOTE: Means were predicted using logit models.									
a. Includes arrangements for unpaid and paid help with personal care, activities around the house and community, routine health care, community services, transportation, and for use of care-related 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.									

TABLE 29. Estimated Effects of Cash and Counseling on Adverse Health Outcomes Elderly									
Outcome	Arkansas (n = 1,164)			New Jersey (n = 742)			Florida (n = 696)		
	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)	Predicted Treatment Group Mean (Percent)	Predicted Control Group Mean (Percent)	Estimated Effect (p-value)
Adverse Events in Past Month									
Fell	19.0	18.6	0.4 (.869)	13.2	20.4	-7.2*** (.009)	17.5	19.7	-2.2 (.468)
Saw a Doctor Because of a Fall ^a	5.4	4.6	0.7 (.587)	4.3	6.1	-1.7 (.289)	3.9	6.8	-2.9 (.142)
Saw a Doctor Because of a Cut, Burn, or Scald ^b	1.4	1.9	-0.5 (.479)	1.6	2.2	-0.6 (.524)	2.9	2.7	0.2 (.882)
Was Injured While Receiving Paid Help ^b	1.8	1.4	0.3 (.673)	1.1	2.6	-1.5 (.133)	1.5	3.6	-2.2* (.070)
Health Problems in Past Month									
Shortness of Breath Developed or Worsened	32.3	36.1	-3.8 (.161)	33.7	39.6	-5.9* (.089)	26.1	35.0	-8.8*** (.009)
Had a Respiratory Infection	23.3	25.3	-2.1 (.404)	26.8	28.4	-1.6 (.617)	20.7	24.7	-4.0 (.216)
Contractures Developed or Worsened	15.9	19.7	-3.9* (.089)	17.5	27.1	-9.6*** (.002)	20.0	21.9	-2.0 (.534)
Had a Urinary Tract Infection	18.2	21.0	-2.8 (.230)	15.7	15.8	-0.1 (.966)	19.5	21.5	-2.0 (.516)
Bedsore Developed or Worsened ^a	7.5	6.8	0.7 (.640)	7.2	7.1	0.1 (.970)	7.9	9.3	-1.4 (.511)
General Health Status									
Current Health is Poor Relative to Peers ^a	48.0	50.0	-2.0 (.462)	37.9	43.8	-5.9* (.071)	44.7	42.8	1.9 (.573)
Spent Night in Hospital or Nursing Home in Past Two Months	25.2	23.7	1.5 (.551)	16.0	17.7	-1.7 (.536)	19.0	20.7	-1.7 (.560)
<p>SOURCE: MPR's nine month evaluation interview, conducted between September 1999 and June 2003.</p> <p>NOTES: Means were predicted using logit models. Sample sizes for some variables in this table were up to 6 percent smaller because of differences in item nonresponse and skip patterns.</p> <p>a. Effects were estimated by pooling the two age groups and including an age*treatment interaction term in the model.</p> <p>b. Impacts could not be estimated with the logit model. Results presented are the unadjusted means and treatment-control differences.</p> <p>*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.</p>									

DISCUSSION

Cash and Counseling had a statistically significant impact on the use and quality of care in all three states, although nearly all the impacts were stronger for Arkansas and New Jersey than for Florida. While the impacts were generally greater for the nonelderly than for the elderly in all three states, we did find that the program worked well for the elderly on many dimensions and, most important, on overall satisfaction with the quality of life. We found no outcomes for which the elderly fared worse under Cash and Counseling in any state. This finding should address some of the concerns about the appropriateness of the consumer-directed model for the elderly or for those who are cognitively impaired.

Arkansas and New Jersey. In both Arkansas and New Jersey, Cash and Counseling had a significant impact on the likelihood of receiving paid assistance at nine months after enrollment for both nonelderly and elderly beneficiaries. Compared to controls, nonelderly treatment group members in Arkansas had fewer total hours of care; they were also more likely to receive care during nonbusiness hours, to purchase equipment or modify their homes or vehicles, and to receive virtually all the different types of assistance they were asked about. Although the finding that treatment group members received fewer hours of care may seem at first to be a negative result, the fact that the consumers in the treatment group fared as well or better than those in the control group indicates that the needed care was provided more efficiently by the consumer-hired caregivers. Treatment-control differences on these indicators in New Jersey were generally smaller and not statistically significant. Among the elderly, the treatment group members in Arkansas were more likely than the controls to receive assistance during evening hours, but few other significant impacts on care use were found for this age group in either state.

The program was very successful in Arkansas and New Jersey. Both elderly and nonelderly treatment group members in these two states were consistently more likely than control group members to report that their paid caregivers completed their tasks and worked when they were supposed to. They were very satisfied with their relationship with their paid caregivers and less likely to report that these caregivers neglected them, were rude or disrespectful, or took something without asking. The treatment group members were less likely to report that care needs were not met and more likely to report high levels of satisfaction with both their overall care and with the way their paid caregivers provided specific types of care.

Our findings should allay concerns that consumers may endanger themselves when directing their own care by hiring workers who are not qualified to perform the needed tasks or by not hiring an adequate number of caretakers. The few significant differences between the treatment and control groups on the incidence of adverse health outcomes or injuries showed that the treatment group was less likely to experience these unfavorable results. In both Arkansas and New Jersey, treatment

group members were significantly more likely than control group members to report being very satisfied with the way they were spending their lives these days.

Florida. In Florida, treatment-control differences in the total hours of care, the timing of care, and the types of assistance received were the smallest of all three states. Among nonelderly beneficiaries in Florida, treatment group members had a higher likelihood of receiving paid assistance at nine months after enrollment, although the impact was smaller than that found for Arkansas and New Jersey. They also had a higher likelihood than controls of receiving care during evening hours. Among the elderly in Florida, the treatment group members received significantly fewer hours of care (paid and unpaid combined) than those in the control group. The treatment and control groups were similar on all other measures of services received.

As seen in Arkansas and New Jersey, nonelderly treatment group members in Florida were more likely than control group members to be satisfied with their care and less likely to have unmet care needs. However, among the elderly beneficiaries in Florida, the treatment group members' rates of satisfaction with care received and unmet needs were essentially the same as those of the control group. Both elderly and nonelderly treatment group members in Florida were significantly more likely than controls to report being very satisfied with the way they were spending their lives these days; however, the differences were smaller than those found in Arkansas and New Jersey. Furthermore, only among the elderly in Florida was there no difference between the treatment and control groups in terms of the percentage reporting that they were *dissatisfied* with the way they were spending their lives.

State Differences Linked to Receipt of the Monthly Allowance. Not surprisingly, this pattern of impacts on satisfaction and receipt of paid care across the three states is consistent with the differences across states and age groups in the percentage of people in the treatment group who were actually receiving the monthly allowance at the time of the nine month survey. In Arkansas, 77 percent of nonelderly community residents who responded, and 72 percent of the elderly who responded, reported receiving the allowance recently (the month of, or the month preceding, the interview). In New Jersey, 61 percent of both age groups reported receiving the allowance recently. In Florida, 54 percent of the nonelderly, and only 39 percent of the elderly, reported receiving the allowance recently.

Several differences in how the programs operated may explain the wide disparity in the proportion receiving the monthly allowance (that is, participating in the program) at nine months. The elderly program enrollees had fairly similar characteristics across the three states, and thus differences in consumer characteristics do not account for the difference in the proportion who hired a worker. Possible explanations for the difference include the following:

- In Florida and New Jersey, program applicants had to be under the care of an agency (or, in New Jersey, at least assessed by an agency) before enrolling in the Cash and Counseling program. Thus they were already receiving (or about

to receive) services, making it less urgent for them to develop the spending plan that was necessary to obtain the allowance.

- In Florida, treatment group members were expected to initiate contact with their counselor to establish a spending plan, which was required before the allowance would be given. In Arkansas and New Jersey, program counselors took more initiative in getting treatment group members started.
- Elderly Florida participants may have moved there upon retirement, leaving family behind, and therefore may have had fewer relatives living nearby. Since most enrollees who did hire a worker hired relatives, it may have been more difficult for Florida treatment group members to find a worker. (However, they typically had multiple unpaid helpers and received more total hours of care than did enrollees in either Arkansas or New Jersey.)
- Consumers of waiver services in Florida received extensive formal case management services, unlike in the other two states. They may have been reluctant to accept the monthly allowance after learning that they would lose these services were they to enroll in the Cash and Counseling program. Although, under the program, counselors were to take on some of the responsibilities previously handled by case managers, this was not always communicated clearly to program participants, many of whom feared they would be “on their own.” And some counselors were under the misimpression that they were to take a “hands-off” approach once the spending plan was developed.

Limitations

Although the study has certain limitations, they do not affect the validity of the findings. The randomized evaluation design helps ensure that the impact estimates are unbiased.²⁶ A primary limitation is that the study pertained to programs implemented in only three states, and thus the findings may not apply to all programs featuring consumer-directed care. Another limitation is that the findings can be generalized only to the extent that demonstration participants are representative of those who would enroll in an ongoing program. Those who volunteered for the demonstration may have been particularly dissatisfied with the traditional system or especially well suited for consumer-directed care (perhaps more proactive in their approach to acquiring needed services); those who enroll in an ongoing program might be different. Finally, estimated program effects depend, in part, on whether the local supply of home care workers in the area was adequate to meet the demand for services during the period studied. Thus the results may have been quite different had the evaluation been carried out a

²⁶ Note that a new round of Cash and Counseling II grants will not require states to randomize when completing their §1915(c) or §1115 applications.

few years later than the period studied here (when the labor market was generally tight) or in states where the labor market was tighter or looser than in these three states.

Another limitation to consider is that we did not directly observe the care provided under the Cash and Counseling program but instead relied on survey responses from beneficiaries or their proxies. Because personal care is nonmedical and the consumer is an important judge of its quality, our reliance on self-reports of satisfaction, unmet needs, adverse outcomes, and health problems is appropriate. Nonetheless it is possible that some control group members exaggerated their dissatisfaction, because they were disappointed by not being assigned to the treatment group, and that some treatment group members experienced health hazards not reflected in survey data. Direct observation would be needed to identify any such tendencies.

Related to this is the fact that certain questions were not asked of proxy respondents, especially those who were being paid to provide care to the beneficiary, when we felt that such a respondent might have a biased response to certain questions (such as level of satisfaction with the care being provided). Because this exclusion applied far more to the treatment group than the control group, impacts for these measures may not be based on statistically equivalent comparison groups. This could result in biased estimates if the control variables in our regression models did not adequately account for the influence of any preexisting differences between the two groups created by this restriction.

Findings may also be limited by our relatively short followup period. Some program effects may not persist over time, as consumers age or lose paid family caregivers. Moreover, consumers' experiences with consumer direction may have been unusually positive during the first nine months of the program because of the novelty of the service model. In that case, the strong effects might eventually diminish. On the other hand, consumers may better manage their care and become more independent over time, so their experiences might become more positive further into the program over time. And the novelty of the program during the initial months may have contributed to some confusion on the part of consumers and counselors.

These limitations notwithstanding, this analysis was based on a rigorous research design and yielded estimated program effects that were large, compelling, consistent across numerous types of measures, and widespread across subgroups. Significant differences also were seen between the treatment and control groups, even though the program effects were mitigated by the fact that many in the treatment group were not actively participating in the Cash and Counseling program when we followed up at nine months after enrollment. Overall our results provide unambiguous evidence that Cash and Counseling improved the amount and quality of paid personal assistance from the perspective of consumers, with no discernible adverse effects on safety or health.

Policy Implications

What do these results mean for states considering a move toward greater consumer direction, which the Federal Government and advocacy groups are encouraging them to do? Our analysis suggests that the program works very well for adults (both younger and older) *if* they actually receive the monthly allowance that Cash and Counseling offers. In Arkansas and New Jersey, where 60-70 percent of the treatment group were receiving their allowance and had hired a worker, the treatment group was more satisfied, reported fewer unmet needs, and experienced no greater incidence of health problems than the control group.

Consumers who are interested in self-direction may need help in finding a worker, perhaps through state-maintained worker registries. States may also need to ensure that they have an efficient process for helping people develop and implement a spending plan, and getting it approved in a timely way. Once consumers have enrolled in a new type of program such as this, extensive support may be needed to assist them through the initial period rather than waiting for them to take the initiative. Also, if states offer a significant level of case management to elderly consumers receiving agency care, the states should consider providing some of those services for consumers through counselors in their monthly allowance program and may need to ensure that the allowance is sufficient for consumers to purchase any such services not provided by the counselor. States may also need to be explicit about how consumers can fill this gap. Not offering such services when consumers are accustomed to having access to them may dampen some consumers' enthusiasm for the program, as it did in Florida.

Conclusions

Based on the findings presented here, states interested in improving the well-being of Medicaid beneficiaries who need PCS should consider adopting consumer-directed approaches such as Cash and Counseling. The empowerment of consumers offered by the program is consistent with the goals of federal initiatives such as the Systems Change Grants and the New Freedom Initiative. States should pay particular attention to ensure that such programs are implemented in a manner that makes certain that interested consumers receive prompt help in developing a spending plan and that the monthly allowance is available to the consumer as soon as possible. A separate report for this evaluation (Phillips et al. 2003) provides lessons for states on how best to accomplish this objective.

REFERENCES

- Allen, Susan, Andres Foster, and Katherine Berg. "Receiving Help at Home: The Interplay of Human and Technological Assistance." *Journal of Gerontology*, vol. 56B, no. 6, 2001, pp. S374-S382.
- Benjamin, A.E. "Consumer-Directed Services at Home: A New Model for Persons with Disabilities." *Health Affairs*, vol. 20, no. 6, 2001, pp. 80-95.
- Benjamin, A.E., Ruth Matthias, and Todd M. Franke. "Comparing Consumer-Directed and Agency Models for Providing Supportive Services at Home." *Health Services Research*, vol. 35, no. 1, April 2000, pp. 351-366.
- Cameron, K., and J. Firman. "International and Domestic Programs Using 'Cash and Counseling' Strategies to Pay for Long-Term Care." Washington, DC: National Council on the Aging, 1995.
- Flanagan, Susan. "An Inventory of Consumer-Directed Support Service Programs: Overview of Key Program Characteristics." Presentation at the Cash and Counseling annual meeting, Arlington, VA, 2001.
- Foster, Leslie, Stacy Dale, Randall Brown, Barbara Phillips, Jennifer Schore, and Barbara Lepidus Carlson. "Do Children with Developmental Disabilities Benefit from Consumer-Directed Medicaid Supportive Services?" Princeton, NJ: Mathematica Policy Research, Inc., February 2004.
- Grana, J.M., and S.M. Yamashiro. "An Evaluation of the Veterans Administration Housebound and Aid and Attendant Allowance Program. Prepared for the Office of the Assistant Secretary for Policy and Evaluation, U.S. Department of Health and Human Services. Washington, DC: Project HOPE, 1987. Available at: <http://aspe.hhs.gov/daltcp/reports/vahbapes.htm>.
- Harrington, Charlene, and Martin Kitchener. "Medicaid Long-Term Care: Changes, Innovations, and Cost Containment." San Francisco, CA: University of California, San Francisco, July 2003. Available at: <http://www.ncsl.org/programs/health/harrington>.
- Hoening, Helen, Donald Taylor, and Frank Sloan. "Does Assistive Technology Substitute for Personal Assistance Among the Disabled Elderly?" *American Journal of Public Health*, vol. 93, no. 2, February 2003, pp. 330-337.
- Kane, Rosalie A., Robert L. Kane, Laurel H. Illston, and Nancy N. Eustis. "Perspectives on Home Care Quality." *Health Care Financing Review*, vol. 16, no. 1, fall 1994, pp. 69-89.

Kunkel, Suzanne, Robert Appelbaum, Shawn Davis, and Barbara Schneider. "Quality and Consumer-Directed Care: Lessons Learned from Arkansas' IndependentChoices Program." Oxford, OH: Miami University, Scripps Gerontology Center, January 2002.

Miltenburg, T., C. Ramakers, and J. Mensink. "A Personal Budget for Clients: Summary of an Experiment with Cash Benefits in Home Care in the Netherlands." Nijmegen, Netherlands: Institute for Applied Social Sciences, 1996.

Osterle, A. "Attendance Allowance Programs and the Socio-Economic Situation of Informal Caregivers: Empirical Results from Austria." Paper presented at the 6th Annual International Conference on Socio-Economics, Paris, July 1994.

Phillips, Barbara, Kevin Mahoney, Lori Simon-Rusinowitz, Jennifer Schore, Sandra Barrett, William Ditto, Tom Renners, and Pamela Doty. "Lessons from the Implementation of Cash and Counseling in Arkansas, New Jersey, and Florida." Princeton, NJ: Mathematica Policy Research, Inc., June 2003. Available at: <http://aspe.hhs.gov/daltcp/reports/cclesson.htm>.

Velgouse, Linda, and Virginia Dize. "A Review of State Initiatives in Consumer-Directed Long-Term Care." *Generations*, vol. 24, no. 3, fall 2000, pp. 28-33.