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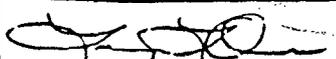
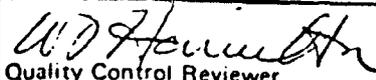
AFDC Homemaker-Home Health Aide  
Demonstration

OVERVIEW OF EVALUATION RESULTS

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## EXECUTIVE SUMMARY

The Aid to Families with Dependent Children (**AFDC**) Homemaker-Home Health Aide Demonstration, authorized by Section 966 of the Omnibus Reconciliation Act of 1980, was designed to test the feasibility of training AFDC recipients to provide homemaker-home health aide services to functionally impaired persons in their own homes. The Health Care Financing Administration (**HCFA**), which was the lead agency for implementing the demonstration, awarded demonstration grants to seven States: Arkansas, Kentucky, New Jersey, New York, Ohio, South Carolina, and Texas. The seven demonstration projects began operations in January 1983 and ran until June 30, 1986. Abt Associates Inc. was the evaluation contractor.

The demonstration had two components--provision of homemaker-home health aide services to the functionally impaired elderly, and training and subsidized employment of AFDC recipients. Participation in each component was voluntary. To allow rigorous evaluation, eligible applicants were randomly assigned to a treatment or control group. Demonstration effects were measured as the differences in outcomes between treatment and control group members.

### Demonstration Treatments

Provision of Services. The demonstration provided up to 100 hours per month of homemaker and home health aide services to individuals in need of long term care. To receive the home care services authorized under this demonstration an individual had to be elderly or disabled, and at risk of institutionalization. In addition, to comply with the Legislation, services could not be "...reasonably and actually available or provided..." to them. Client applicants were assessed by health care, and social service professionals to determine eligibility to participate in the demonstration. Clients assigned to the service group could continue to receive services, if needed, as long as the demonstration continued. A sliding scale fee was charged to service clients with incomes greater than twice the AFDC standard of need in their State.

Training and Subsidized Employment. The demonstration provided a 4- to 8-week period of homemaker-home health aide training followed by up to a year of subsidized employment. To be eligible, an individual had to be currently eligible for AFDC, must have received AFDC benefits for the previous **90** days, and not employed as a homemaker or home health aide during that period.

#### Operation of the Demonstration Projects

Client Functions. The client outreach function was typically performed by demonstration provider agencies or regional or county staff of social services departments, mainly through meetings with and mailings to relevant agency representatives. The intake process typically began with a brief telephone preliminary screening interview using a standard set of eligibility criteria. Those clients who appeared eligible were scheduled for a formal, structured **inperson** assessment by trained assessors, designed to determine an applicant's health and functional status, informal support, and need for services.

Most of the agencies providing services to demonstration clients were established service providers. Services to clients were mainly homemaker services and personal care assistance, though some clients also received health care assistance or home management services. An Independent Professional Review (**IPR**) monitored client eligibility and the appropriateness and quality of service delivered to clients. It included a record review on a 20 percent sample of clients and an in-home review of a 5 percent sample of active cases, conducted each quarter.

Trainee Functions. Mass mailings were the typical outreach method used to contact AFDC recipients and encourage them to apply to the demonstration. In most States, the mailings were followed by group orientation meetings, then individual interviews with project staff,

Training included both classroom and practicum components. Virtually all sites used the Model Curriculum developed by the National Home Caring Council as the basic framework for training. The practicum, which provided trainees with hands-on experience in nursing homes and/or in private homes, averaged about 26 hours.

Following training, aides were generally employed by established service providers at wages averaging \$3.84 per hour. The typical aide made about 25 3-hour visits each month, and served four or five different clients.

### Effects on Clients

Formal In-Home Services. The demonstration was expected to affect client outcomes by increasing the total amount of in-home care received by service clients. It is important to remember that the demonstration was implemented in environments in which there were other formal in-home services, but for various reasons, such as waiting lists or inability to pay, these services were not available or provided to demonstration clients at the time they entered the demonstration. The average rate of formal care among client controls (including those receiving no service) ranged from less than 1 hour per week in Arkansas to nearly 4 hours per week in New York.

- The demonstration significantly increased formal care received in every State, by amounts ranging from 1.5 hours per week in Kentucky to 10.4 hours per week in South Carolina.

Informal Care. No significant demonstration effects were found on the proportion of clients who received uncompensated care from members of their own households. There were significant demonstration effects on informal care from nonhousehold sources, however.

- Service clients in five States **were** significantly less likely than client controls in those States to receive informal care from nonhousehold sources, by amounts ranging from 4 to 10 percentage points.
- In six of the seven States, the effects of the demonstrations in increasing formal care to clients were significantly larger than the effects of decreasing informal care. The extent to which reductions in informal care offset the increases in formal care ranged from 0 to 40 percent.

Survival. There were no significant demonstration effects on the fraction of clients surviving the **followup** period or the percentage of the **followup** period survived.

Hospital Care. Although it was not anticipated that demonstration services could prevent hospital admissions, it was expected that they could reduce average length of stay by enabling service clients to be discharged more quickly to recuperate at home.

- Over the 1-year **followup** period as a whole, no significant service-control differences were found in the proportion of clients hospitalized, in the mean number of hospital admissions, or in the average length of hospital stay. There was, however, a statistically significant reduction in the time spent in hospitals in New Jersey during the first 6 months of the **followup** period.

Nursing Home Care. The primary goal of the demonstration was to prevent or delay nursing home admission. This objective was not achieved.,

- There were no significant impacts on either the proportion of clients institutionalized or the fraction of the **followup** period spent in nursing homes.

Only 8 to 16 percent of client controls were admitted to nursing homes during the **followup** period, and the average fraction of the **followup** period spent in nursing homes by client controls was only 4 to 5 percent. Thus, there was little scope for reductions in institutionalization.

Certain subgroups of the client population--the very old (80 years of age or older), the mentally or physically impaired, the very old who lived alone, the very old who were mentally or **physically** impaired--tended to have higher rates of institutionalization than the demonstration population as a whole. However,

- The demonstration did not succeed in significantly reducing the likelihood of nursing home admissions for any of these high-risk subgroups.

Other Medical Services. There were essentially no impacts on clients' utilization of doctors, nurses, or therapists.

Medicare and Medicaid Reimbursements. Average total Medicare reimbursements for client controls ranged from about \$600 to \$1600 per client per quarter. Average Medicaid reimbursements for client controls ranged from around \$80 to around \$250.

Given the almost negligible effects of the demonstrations on time spent in hospitals and nursing homes, major reductions in Medicare and Medicaid reimbursements could not be expected.

- Only in New Jersey were Medicare reimbursements significantly reduced, by \$239 per client served per quarter. Three-quarters of this decline was due to a statistically significant decrease in hospital reimbursements.
- Only in Arkansas and South Carolina were there significant reductions in Medicaid reimbursements-- of \$40 and \$59, respectively, per client per quarter.

Health and Functioning. The demonstration had significant beneficial effects on several measures of client health and **functioning**, and on unmet client needs.

- There were significant decreases in the average number of Activities of Daily Living (**ADL**) and Instrumental Activities of Daily Living (**IADL**) in which more help was needed; and in the proportions of clients experiencing unmet need for any medical appliances, for in-home medical equipment, or for skilled health services.
- Clients served by the demonstration were totally dependent in significantly fewer ADL and IADL than client controls, had significantly better mental orientation, and were significantly less likely than client controls to have had a specific medical condition worsen.
- Service clients were significantly more likely than client controls to rate their own health higher at reassessment than they had at initial assessment.

## Effects on Trainees

Employment and Earnings. Positive demonstration effects on overall trainee employment and earnings were expected from two sources: directly from participation in subsidized employment and indirectly from increased success in regular (nondemonstration) employment. In six of the seven States (all except New York) the demonstration had the expected effect on earnings.

- Over the entire **followup** period in these six States, the increase in total monthly earnings (including both demonstration and nondemonstration earnings) ranged from \$121 to \$215, representing increases of 56 to 131 percent.
- For the period of demonstration participation, monthly earnings gains ranged from \$96 to \$141 per training entrant.
- For Postdemonstration Year 1, when most trainees had left subsidized employment, monthly earnings gains ranged from \$62 to \$220 per training entrant. For Postdemonstration Year 2, they were still positive and significant in five States, ranging from \$95 to \$194 per training entrant.
- Nondemonstration earnings in Postdemonstration Year 1 increased significantly in four States, with gains ranging from \$26 to \$79 per training entrant.
- Nondemonstration earnings in Postdemonstration Year 2 increased in five States, ranging from \$95 to \$192 per training entrant. Thus, the trend in nondemonstration earnings gains did not typically decline over the **followup** period.
- For nondemonstration jobs, effects on the percent employed, hours worked per month and hourly wage rate effects were positive in four States during Postdemonstration Year 1 and in four to five States (and somewhat larger) in Postdemonstration Year 2.

Public Benefits. The overall effects of the demonstration on public benefits were consistent with the effects on total earnings.

- All seven States moved a significant proportion of trainees off AFDC. In four of the seven States, the reductions in the proportion of trainees receiving AFDC in a typical month were between 25, and 40 percentage points. The average benefit amount received from AFDC was reduced in six of the seven States.

- In four States, the demonstrations moved significant proportions of demonstration trainees out of the Food Stamp Program and reduced the average food stamp benefit amount.

Average Medicaid benefits over the evaluation **followup** period as a whole were not significantly affected by any of the demonstrations, at least in part because Medicaid eligibility for trainees was automatically extended to cover the period of subsidized employment.

Public benefit savings attributable to demonstration participation can be expected to decline over time. Control group members can be expected to leave the welfare rolls through natural caseload turnover, reducing the scope for benefit savings, and demonstration trainees may return to welfare.

- The demonstration's effects on AFDC and food stamp benefits peaked in Postdemonstration Year 1. At the end of the **followup** period (**30** months) positive **AFDC/food** stamp benefit savings were still evident in four States.

Trainee Applicant Characteristics, Selection, and Performance. Intake worker assessments of applicants' potential as homemaker-home health aides were analyzed in an attempt to identify characteristics or measures which could be used ex ante to predict subsequent trainee performance.

- Intake workers' assessments of trainee potential were weak predictors of performance in training, but had no value as predictors of performance in subsidized employment.
- Trainees with higher ratings of potential had consistently higher earnings and lower AFDC and food stamp benefits regardless of whether they were assigned to the training or control groups.
- Intake workers' ratings have little value for selecting those applicants who would benefit most from the demonstration program.

## Benefits and Costs

Did the benefits achieved by the demonstration exceed the value of the additional resources (net of evaluation costs) required to provide services to clients and/or to train and employ the aides? We first examine the benefits and costs of the client component taken by itself and the trainee component taken by itself, to determine the net benefits that would be derived if either component were implemented separately. We then examine the net benefits of the two components implemented jointly, as they were in the demonstration.

Client Component Alone. In none of the seven States did the client component achieve positive net benefits to society as a whole (see Table S.1). This was due primarily to the failure of expected reductions in institutionalization to materialize.

TABLE S.1. NET BENEFITS OF CLIENT COMPONENT  
(dollars per hour of service)

	Society	Clients and Informal Caregivers	Taxpayers
Arkansas	-24.53	<b>.56</b>	-25.09
Kentucky	-18.80	1.36	-20.16
New Jersey	-9.76	<b>.80</b>	-10.56
New York	-20.10	<b>.26</b>	-20.36
Ohio	-2.87	<b>.98</b>	-3.85
South Carolina	-4.28	<b>.73</b>	-5.01
Texas	-13.93	<b>.36</b>	-14.29

- From society's perspective, the net costs of the client component ranged from \$4.28 per hour of service to \$20.10 per hour of service.
- Clients achieved small benefits, primarily from reduced costs of formal in-home care.
- Taxpayers paid the costs, ranging from \$3.85 to \$25.09 per hour of service.
- The major costs were the operational costs, ranging from \$6.71 to \$26.87 per hour of service--typically substantially more than the Medicare cost Limits for home health aide services.
- Against these costs must be assessed the modest beneficial effects on client health status and functioning.

Trainee Component Alone. In six of the seven States, the trainee component achieved substantial net social benefits (see Table S.2). For these six States:

- From society's perspective, the net benefits of the trainee components ranged from \$2,226 to \$12,961 per training entrant.
- The net benefits went primarily to the trainees in all States except one, ranging from \$1,986 to \$16,670.
- The taxpayers gained in three States, and paid net costs in four.
- The Largest social benefit in almost all States was the increase in nondemonstration earnings of trainees, ranging from \$2,181 to \$18,962 per training entrant.
- The Largest social costs in almost all States were the operational costs, ranging from \$4,229 to \$8,688 per training entrant.

TABLE S.2. NET BENEFITS OF TRAINEE COMPONENT  
(dollars per training entrant)

	Society	Trainees	Taxpayers
Arkansas	2,226	-3,319	5,545.
Kentucky	3,858	7,820	-3,962
New Jersey	12,961	16,670	-3,709
New York	-3,594	4,254	-7,848
Ohio	12,208	10,335	1,873
South Carolina	9,483	1,986	7,497
Texas	5,604	9,342	-3,738

Client and Trainee Components Combined. In only two States did the demonstration as a whole achieve positive net social benefits (see Table **S.3**).

- Those two States achieved positive net benefits of \$13.47 and \$15.75 per hour of service.
- The social costs in the other five States ranged from \$3.68 to \$40.00 per hour of service.
- Clients reaped minor monetary net benefits--less than \$1.50 per hour of service.
- Trainees received net benefits in six of the seven States, ranging from \$1.67 to \$37.02 per hour of service.
- Taxpayers bore net costs in six of the seven States, ranging from \$1.11 to \$77.28 per hour of service.

In return for these taxpayer costs, trainees received substantially increased earnings; clients benefited from improved mental and physical functioning and reduced unmet need; and taxpayers derived the satisfaction of knowing that aged and impaired clients were being cared for, and that former welfare recipients were and are working. Whether these benefits are worth their cost to taxpayers is, in the end, a question for policymakers and the public to answer.

TABLE S.3. NET BENEFITS OF CLIENT AND TRAINEE COMPONENTS COMBINED  
(dollars per hour of service)

	Society	Clients	Trainees	Taxpayers
Arkansas	-9.67	<b>.56</b>	-10.96	<b>.73</b>
Kentucky	-4.47	1.36	16.59	-22.42
New Jersey	15.75	<b>.80</b>	30.72	-15.77
New York	-40.00	<b>.26</b>	37.02	-77.28
Ohio	13.47	<b>.98</b>	13.60	-1.11
South Carolina	<b>-.39</b>	<b>.73</b>	1.67	-2.79
Texas	-3.68	<b>.36</b>	18.85	-22.89

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## I. OPERATION OF THE DEMONSTRATION, EVALUATION METHODOLOGY, AND DATA SOURCES

The Aid to Families with Dependent Children (**AFDC**) Homemaker-Home Health Aide Demonstration was designed to test the feasibility of training AFDC recipients to provide homemaker-home health aide services to functionally impaired persons in their own homes. The Omnibus Reconciliation Act of 1980 authorized the Secretary of Health and Human Services to **enter into** agreements with a number of States to conduct such demonstration projects. The Secretary designated the Health Care Financing Administration (**HCFA**) as the lead agency for implementing the demonstration, and demonstration grants were ultimately awarded to seven States: Arkansas, Kentucky, New Jersey, New York, Ohio, South Carolina, and Texas. The first State project began operations in January 1983 and the demonstration ran until June 30, 1986.

The demonstration had two components, corresponding to its two goals of reducing welfare dependence by giving AFDC recipients a marketable skill and work experience and of reducing institutionalization among clients.

The first component was a **4-** to 8-week period of formal **homemaker-**home health aide training for AFDC recipients, followed by up to a year of subsidized employment. The second component was provision by the demonstration trainees of up to 100 hours per month of homemaker and home health aide services to individuals in need of long **term care**. Participation in each component was voluntary. To allow rigorous evaluation, eligible trainee and client applicants were randomly assigned to a treatment or control group. Demonstration effects are measured as the differences in outcomes between the treatment and control group members.

Abt Associates Inc. is under contract with HCFA and the seven demonstration States to evaluate the effects of the demonstrations on clients and trainees. This summary report has been prepared in compliance with section 966 (**h**) of Public Law 96-499, which required the submission of a final report to Congress evaluating the demonstration. The Technical Reports on which it is based are Listed at the end of this report.

The remainder of Chapter I provides a brief overview of the organization and functioning of the demonstration, the evaluation methodology, and data sources. Chapter **II** presents the demonstration impacts on clients' receipt of formal in-home services and informal care, institutionalization, use of other medical services, functioning, health status, and well-being.

Chapter III presents impacts on trainee earnings, employment, and public benefit receipt and discusses how trainee outcomes may have been affected by the trainee selection process. Chapter IV presents estimated benefits and costs of the two components of the demonstration separately and in combination. Chapter V discusses the conclusions and implications to be drawn from the demonstration.

### Overview of the Demonstration

Within each of the seven demonstration States, the demonstration was implemented in selected local areas, or sites. As shown in Table 1.1, the number of sites in each State ranged from 4 in Texas to 20 in South Carolina. In most States, the sites were individual counties or cities.<sup>1</sup> The 7 sites in Arkansas encompassed 28 (largely rural) counties, and Kentucky's 10 sites were Area Development Districts, each encompassing several counties.

Following a 6-month planning phase, demonstration operations began in January 1983, with the enrollment of the first trainees in Arkansas. Trainee enrollment in Kentucky, New Jersey, and Texas begin in February 1983, and in Ohio and South Carolina in April 1983. In each of these States, enrollment of clients began one to three months later, as the first classes of trained aides entered subsidized employment. Implementation in New York was substantially delayed by protracted contract negotiations with local provider agencies and extended negotiations between the State and HCFA regarding client eligibility criteria. In that State, the first trainee was enrolled in August 1983, and the first client was not enrolled until July 1984, nearly a year later. In the interim, demonstration aides served nondemonstration clients, under nondemonstration funding.

Under demonstration guidelines, each State was allowed to train up to 300 aides in the first year. Three States (Arkansas, Kentucky, and South Carolina) set substantially Lower training **targets** in recognition of the anticipated difficulties of recruiting, training, and employing the aides in their predominantly rural sites. The total numbers of AFDC recipients entering training over the 3 years of the demonstration (shown in the fourth column of Table 1.1) reflect these differences in the planned scale of demonstration activities, as well as the delayed implementation in New York.

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<sup>1</sup>A complete list of demonstration sites is provided in the Appendix.

In total, 700 to 900 AFDC recipients entered training in each of the projects in New Jersey, Ohio, and Texas. The three predominantly rural States--Arkansas, Kentucky, and South Carolina--each enrolled about 450 trainees over the course of the demonstration. In New York, there were about **350** training entrants.

The total numbers of clients served varied among the demonstration projects both because of these differences in the number of aides trained and because of differences in the number of clients served by each aide. **Client-**aide ratios varied from approximately two to one in Arkansas, South Carolina, and Texas to over four to one in Kentucky. Moreover, as noted, New York did not begin serving demonstration clients until nearly a year after the first demonstration trainees were enrolled. The resulting numbers of clients served are shown in the last column of Table 1.1. The 3-year totals range from 207 clients in New York to more than 2,800 in Ohio. Kentucky and New Jersey were near the high end of the range, serving about 1,600 and 2,000 clients, respectively. Arkansas served nearly 800 clients, South Carolina nearly 1,000, and Texas about 1,200.

The authorizing legislation<sup>2</sup> and subsequent HCFA guidelines set overall parameters that governed the client and trainee components of the demonstration as follows:

- The service component consisted of homemaker-home health aide services provided on a part-time, intermittent basis (not exceeding 100 hours a month) to elderly, disabled, or other individuals who would be at risk of institutionalization without such services, and who did not have nondemonstration services reasonably available to them. Clients with incomes above 200 percent of the State AFDC needs standard contributed to the cost of their care according to a State-specific sliding fee scale based on income.
- The service providers were to be public or private nonprofit agencies.
- There was to be a periodic Independent Professional Review (IPR) to assess continuing client eligibility for service and to make sure that appropriate services were being delivered.

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<sup>2</sup>Section 966 of the Omnibus Reconciliation Act of 1980 (P.L. 96-499).

Table I.1 Timing and Size of the Demonstration Projects

	Number of Sites	Startup Date		Project Size	
		Trainees	Clients	Training Entrants	Clients Served
Arkansas	7	1/83	4/83	447	772
Kentucky	10	2/83	4/83	431	2,004
New Jersey	5	2/83	3/83	887	1,626
New York	5	8/83	7/84	355	207
Ohio	19	3/83	4/83	694	2,806
South Carolina	20	3/83	4/83	455	961
Texas	4	2/83	5/83	751	1,163

- To be eligible for the training and employment component, which was voluntary, potential trainees must have been AFDC recipients for the previous 90 days and not employed as aides during that time. The training period of 4-8 weeks was followed by up to a year of subsidized **full-time** employment, during which Medicaid coverage continued, wages comparable to those received by nondemonstration aides were paid, and work-related support services were provided.
- Each State was allowed to train up to 300 aides during the first year.
- The training agencies were to be public or private nonprofit institutions.
- It was intended that demonstration aides would serve demonstration clients. To allow some operational flexibility, however, up to 10 percent of the clients' services could be provided by nondemonstration aides, and demonstration aides were allowed to spend up to 10 percent of their time serving nondemonstration clients.

Within these overall demonstration parameters, it was Left to each State to design, plan, implement, and run its homemaker-home health aide project. The seven demonstration projects, therefore, shared a basic similarity, but also differed along a number of dimensions. Each State could impose its own additional criteria for inclusion of clients and trainees into the program, and devise its own procedures and policies with respect to outreach methods, training, and service provision.<sup>3</sup>

### Client Functions

The objective of the client component was to implement outreach and assessment procedures to identify eligible clients and to provide them with homemaker-home health aide services. The four major client functions--outreach, assessment, service provision, and IPR--are described in turn.

Outreach. The client outreach function was typically performed by demonstration provider agencies or regional or county staff of social services

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<sup>3</sup>The description that follows is taken from **Margot Cella** Operational Costs of the Demonstration. Washington D.C.: Abt Associates. 1986.

departments. In some States, this process was shared by both types of agencies (New Jersey, New York, Ohio); in others, only one or the other type of agency was used. The major exception was Arkansas, where State **demonstration** staff located in field offices performed this function.

The primary outreach methods used by all the States were meetings of demonstration staff with long term care and social service agency representatives in groups or individually, and mailings to agencies. Each State made a strong effort to develop a referral network of agencies and individuals who were in routine contact with potential clients. South Carolina was most successful in this, holding regular meetings with interagency councils (composed of representatives of local long term care agencies) in each site, developed by demonstration staff to generate appropriate referrals; another long term care program, the Community Long Term Care Project, also acted as an important referral source in that State.

A wide range of outreach methods was used by the States to supplement the primary methods. Newspaper, television, or radio publicity was used to some extent in all States. And all States except Arkansas sent mailings to potential clients, using nursing home and home health agency mailing lists as well as other potentially fruitful Lists.

Intake. The referral process typically began with a brief telephone call from potential clients to the local demonstration agency (provider agency or local welfare agency). At this time, a brief preliminary screening interview was conducted using a standard set of criteria to determine if the client met the major eligibility requirements imposed by the Legislation and HCFA guidelines. Those clients who appeared to be eligible for demonstration services based on the screening criteria and any additional information obtained over the phone were scheduled for an **inperson** assessment.

Assessment. Client assessments were **inperson** interviews by trained assessors--designed to determine an applicant's health and functional status, availability of support services, eligibility for demonstration services, and the nature and Level of services needed. As with outreach, this function was carried out in some States by -provider agencies.and in others by county social service departments. South Carolina used county department staff; New Jersey and Texas relied on providers; New York and Ohio used a combination of the two. Arkansas and Kentucky delegated assessments to the same agencies that

performed client outreach and screening--State demonstration staff located in field offices and regional social services department staff located in the Area Development Districts (ADDS), respectively.

Initially, assessment staff received a 3-day training session designed and conducted by the evaluation contractor; at least-one additional session was held in each State over the course of the demonstration. Provider agency supervisory staff or State staff were responsible for additional formal training as new staff were hired.

In all seven States, the **inperson** assessment used a detailed formal instrument called the Client Assessment Instrument (**CAI**), designed by the evaluation contractor. This form collected data on clients' functional status and orientation, informal care resources, recent institutionalization, medical conditions, financial resource, and other relevant data. On the basis of the CAI, the final eligibility decision was made either by the assessors themselves or by their supervisors. The names of eligible applicants were then forwarded to State demonstration staff to be submitted to the evaluation contractor for random assignment to either the service or control group. The only exception to this was Texas, where names were submitted for random assignment directly from the agencies at the sites. Clients were notified of their status (service or control group) through various methods. Four States used letters; Kentucky and New York used a combination of letters and telephone calls; Ohio used a combination of letters, telephone calls, and personal contacts.

The number of assessors per site and their backgrounds varied within and across States. Typically, sites had two-three **assessors** who performed other duties in addition to assessments. Ohio averaged four assessors per agency, as did South Carolina, where there were as many as 11 assessors in one site. Kentucky generally had one assessor in each region.

Service Provision. Most of the agencies providing services to demonstration clients were established service providers. They fell into several categories: State or Local public agencies; private agencies, whose primary function was providing in-home services; **and** private agencies with other primary functions, such as coordination of programs for the aging or social services. In Arkansas, services were provided by local units of **the State** health department. Kentucky contracted with various types of providers,

including local health departments, home health agencies, and others (such as family service and senior citizens' organizations). New Jersey contracted with a range of providers, including a county social service agency and organized home care agencies. New York used Visiting Nurse Associations, family service agencies, and other private home health provider agencies. Most Ohio provider agencies were nonprofit social service agencies, **homemaker-**home health aide agencies, or county health departments; two county welfare departments also functioned as service providers. South Carolina contracted with a large regional medical center for service provision in five counties, and with local councils on aging in the other sites. The local project sites in Texas contracted primarily with home health agencies, both public and private, for demonstration service provision. In two sites these were city departments already providing homemaker services; in the other two sites, the cities administering the project contracted with private home care providers.

Services to clients included homemaker services and personal care assistance. During aide visits, clients might also receive health care assistance or home management services. As noted, the demonstration guidelines set a limit of 100 hours of service per client per month. Within that limit, the amount of service provided was determined by a care plan developed for each client at the time of the initial assessment and subsequently revised as appropriate to reflect changes in the client's needs or condition. Client reassessments were conducted at the discretion of the provider agencies; generally this procedure was initiated by agencies as a monitoring device to ensure quality and appropriateness of care.

Independent Professional Review (IPR). The IPR was designed to monitor client eligibility and the appropriateness and quality of service delivered to clients. Guidelines specified both a record review on a 20 percent sample of clients and an in-home review of a 5 percent sample of active cases to be conducted each quarter. The IPR function was operationally separate from staff who oversaw the demonstration itself and from service provision, so as to preserve its independence from demonstration operations. This function is not dissimilar to quality assurance or peer review activities performed by State Medicaid agencies nationwide. Most States staffed the IPR function with a combination of registered nurses and social workers on a **part-**time basis.

## Trainee Functions

The trainee component solicited applicants for demonstration training, selected from among the eligible applicants, provided formal homemaker-home health aide training, and employed the trained aides on a subsidized basis for up to 12 months. Each of these **functions** is described in turn.

Outreach and Selection. In two of the States, Arkansas and South Carolina, the demonstration projects had centralized organizational structures. State project staff took on the lead responsibility for most of the training functions. In the other five States, the trainee outreach and selection process was more decentralized, with project staff in either local welfare agencies (New Jersey, Ohio, and Texas), local districts (New York), or social service agencies (Kentucky) assuming the lead responsibility for all related tasks. In each State, the responsible staff generated lists of AFDC recipients who were contacted and encouraged to apply to the demonstration. In most States and sites, these trainee outreach activities were scheduled to coincide with scheduled training classes; however, in some sites, training classes were held virtually continuously, requiring that outreach also be more or less continual. Outreach waves lasted from as little as 2 weeks to as much as 10 weeks, with outreach staff typically working only part-time on these activities.

Mass mailings were the typical outreach method used, except in Kentucky, which relied on an equal combination of letters and telephone contacts. Additional outreach methods were employed to supplement the mailings in all States except South Carolina. These additional methods included telephone and **inperson** contacts, media advertising, and brochures. The extent to which additional outreach methods were used increased as the demonstration progressed, particularly in **those** sites which scheduled multiple training sessions.

A variety of mechanisms were employed through which AFDC recipients could express interest in the demonstration. In two States, Arkansas and Ohio, reply forms were included with the original mailing. New York and Texas encouraged interested parties to contact their caseworker or local welfare office. Attendance at group orientation meetings served as the main response vehicle in Kentucky, South Carolina, and two sites in Texas. New Jersey used

a combination of all three response mechanisms--response forms, telephone calls, and invitations to group meetings.

All interested recipients were required to go through a personal interview process. In those sites where group meetings were held, this process was two-tiered, beginning with the orientation **meeting**. Those recipients who did not screen themselves out of the demonstration during the orientation were invited to complete an application and enter into the second tier--the personal interview. This interview took **place immediately** following the group session in the States where trainee selection was primarily a demonstration staff responsibility. In those States where the provider agencies played significant roles in the selection process (Kentucky, New Jersey, New York, and Texas), applicants were sometimes interviewed separately by demonstration and provider agency staff over several days.

The names of applicants who met all the eligibility requirements and were deemed acceptable for training were forwarded to State staff, who transmitted them by telephone to the evaluation contractor for random assignment. (In Texas, names were submitted directly by the local demonstration staff.) Half the applicants were randomly assigned to training and the other half were assigned to a control group, which made them ineligible to reapply to the demonstration.

During the period of ongoing demonstration operations, the elapsed time between initial outreach and final selection and assignment of trainees was, on average, 5 to 6 weeks. The interval between application and screening (via the interview) averaged 3 days; between screening and assignment, about 2 weeks. The typical trainee waited 3 weeks after assignment before entering training. In Arkansas, Kentucky, New York, South Carolina, and Texas, about 1 month elapsed from the point of application to the start of training. In New Jersey the lag averaged 42 days. In Ohio it **averaged** 71 days.

Training. AFDC recipients assigned to the training group received training that consisted of both classroom and practicum components. Training activities were split between public and private agencies. New Jersey and New York used primarily service providers as **training** agencies; Arkansas, South Carolina, and Ohio used primarily public and private vocational technical schools. Kentucky used individual instructors teaching under the auspices of a vocational technical school. Texas used service providers and

community colleges about equally. In most States, the demonstration included both agencies that trained only demonstration aides and agencies that trained other aides as well, although in the typical situation separate classes were held for demonstration aides. The two exceptions were Arkansas, where training agencies trained demonstration aides only and New York, where all training agencies trained both demonstration and nondemonstration aides and joint classes were the norm.

The training curriculum varied by State, but virtually all sites used the Model Curriculum developed by the National **HomeCaring** Council as the basic framework for training. However, supplemental texts were used in many instances, and many sites added segments devoted to subjects not covered in the model curriculum. The average length of classroom training was 121 hours **over** 4 to 5 weeks. Only New York and South Carolina reported using no additional materials or texts, and these two States had the shortest training sessions, lasting 60 and 87.5 hours, **respectively**.<sup>4</sup> The longest classroom component was in Kentucky, where the trainees averaged 191 hours over a 7-week span. The practicum, which provided trainees with hands-on experience in nursing homes and/or in private homes, averaged about 26 hours over all States together, spanning a range from 48 hours in Texas down to 12-13 hours in New Jersey and Arkansas. One site in Texas provided from 1 to 4 weeks of practicum based on the needs of the individual trainee.

Subsidized Employment. Trained aides were generally employed by established service providers--public agencies, Medicare-certified home health agencies, private nonprofit homemaker-home health aide agencies. In Arkansas, aides were hired by local units of the State health department. Kentucky contracted with various types of providers--including local health departments, home health agencies, and others such as family service (primary health care) and senior citizens' organizations--some of which served only small numbers of demonstration clients. New Jersey contracted with a range of providers, including a county social service agency and organized home care agencies. Most Ohio provider agencies were nonprofit social service agencies, homemaker-home health aide agencies, or county health departments; two county welfare departments also functioned as provider/agencies. South Carolina

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<sup>4</sup>See Larry Orr et al. Second Annual Report: Cross-State Analysis. Washington DC: Abt Associates, 1984.

contracted with a large medical center for service provision in five counties, and with local Councils on Aging in the other areas. In Texas, the local projects contracted primarily with home health agencies, both public and private, for service provision. In two sites, these were city departments already providing homemaker services; in the other two **sites**, the cities contracted with private home care providers.

Aides' wages averaged \$3.84 per hour; the two most rural States, Arkansas and South Carolina, paid aides the minimum wage (\$3.35); New Jersey and Ohio paid wages over \$4.00 per hour on average. Aides were employed only about three quarters **time** on average during the first operational year. Nearly 60 percent of all paid hours were spent in service provision; some of the nonservice time was spent in traveling to and from clients' homes. Aides generally provided homemaker services and personal care services during their visits, although sometimes visits to demonstration clients included health care assistance or home management services.

The typical aide made about 25 3-hour visits each month and served four or five different clients, although this varied greatly by State. New Jersey typified the norm. Arkansas aides made an average of about 14 3-hour visits per month, serving less than two clients on average. Kentucky aides made more than the average number of visits (**27**) for a shorter period of time (less than 2 hours) to six or seven clients. In South Carolina, the typical aide made 34 home health visits of nearly 4 hours in duration and served two different clients per month. The aides in Ohio and Texas provided visits of about 3 hours; Ohio aides made an average of 30 visits per month; Texas aides averaged 15. In New York, demonstration aides made 20 visits per month, averaging nearly 4 hours in length.

#### Evaluation Methodology and Data Sources

The basic evaluation methodology was to use random assignment of eligible client and trainee applicants to treatment and control groups and to measure effects as the difference in outcomes between service clients and client controls and between trainees and trainee controls, respectively. Little can be learned based on outcomes for the-treatment group alone. For example, service clients' functioning may deteriorate over the course of the demonstration as a result of aging, not as a result of the demonstration. By

determining whether the service clients' abilities deteriorated less than the abilities of client controls, we can measure the effect of the demonstration as distinct from what would have happened to the service clients in the absence of the demonstration. Because of random assignment, simple **treatment-control** differences will yield unbiased estimates of demonstration effects. However, effects on most outcomes have been estimated by multiple regression procedures to net out the effects of measured factors that are independent of the demonstration treatment (for example, trainee age), in order to increase the precision of the estimates.

The estimates presented in this report are for the training entrants and clients served, rather than for trainees and clients assigned to the treatment groups. These estimates correspond to the slot cost of an operating program and are appropriate measures of the treatment effect assuming that persons not exposed to the treatment were unaffected by the demonstration. Estimated impacts per trainee or client assigned are slightly smaller, but have identical statistical significance levels.

To measure client impacts, the evaluation collected baseline data on personal characteristics, informal support systems, health, and functioning through a detailed **inperson** assessment; telephone **followup** survey data on nursing home, hospital, and other health services utilization; Medicare and Medicaid reimbursement record data; and **followupinperson** reassessment data for a subsample of clients on health status, and physical and mental functioning. To measure trainee impacts, the evaluation collected baseline application form data on trainee characteristics and prior work and caregiving experience; training records and monthly work histories during demonstration participation; nondemonstration employment and earnings data from a telephone **followup** survey; and State program record data on AFDC, food'stamp, and Medicaid benefit receipt.

Sample sizes for four of the five major data collection activities are shown in Table 1.2. In addition, an **inperson** health status reassessment was administered to a random subsample of 3,333 clients **and** client controls initially assessed before July 1, 1984.

Table 1.2: Sample Sizes by Data Source  
(number of persons with data)

	Trainee Followup Survey <sup>a</sup>	Trainee Public Benefit Records Data <sup>b</sup>	Client Followup Survey <sup>c</sup>	Client Medicare/Medicaid Data <sup>d</sup>
Arkansas	297	1,033	1,078	1,151
Kentucky	317	893	2,348	4,009
New Jersey	774	2,036	2,366	3,345
New York	181	564	383	453
Ohio	711	1,541	2,366	5,122
South Carolina	474	1,020	1,644	1,852
Texas	707	2,030	1,940	2,078

<sup>a</sup> Interviews were attempted with all trainees and trainee controls assigned by May 31, 1984.

<sup>b</sup> Records data collection was attempted for all trainees and trainee controls assigned by June 29, 1985.

<sup>c</sup> **Followup** interviews were attempted with all clients and client controls at 6 and 12 months after assignment, until either at least 2,300 interviews had been completed in a State or until October 29, 1985, whichever came first.

<sup>d</sup> Medicare records data collection was attempted for all clients and client controls assigned by May 31, 1985. Medicaid records data collection was attempted for all clients and client controls assigned by dates ranging from February 22, 1985 to May 31, 1985, depending on the State. Medicaid data were not collected in New York because of the small sample size in that State, combined with the low level of Medicaid reimbursement.

Because only a subsample of clients was reassessed, State-specific sample sizes were too small for reliable analysis. The average length of the **followup** period for the different data collection activities were as follows:

Trainee **followup** survey--22 months

Public benefit records data--18 months

Client **followup** survey--6 and 12 months after assignment (71 percent received both **followup** surveys; 25 percent received only the first followup; 4 percent received only the second followup)

Client Medicare/Medicaid records--13 months

Health status reassessment--20 months

## II. EFFECTS ON CLIENTS

The expected effects of the demonstration, the process by which they were expected to occur, and the role of some additional mediating variables are shown in Figure 11.1. The various expected outcomes are naturally interconnected. Demonstration services were expected to increase **total** home health care available to clients. **They were** expected to reduce the amounts of other formal in-home services and informal care that the clients would otherwise have **received**,<sup>5</sup> but not by enough to offset the additional in-home care provided by the demonstration.

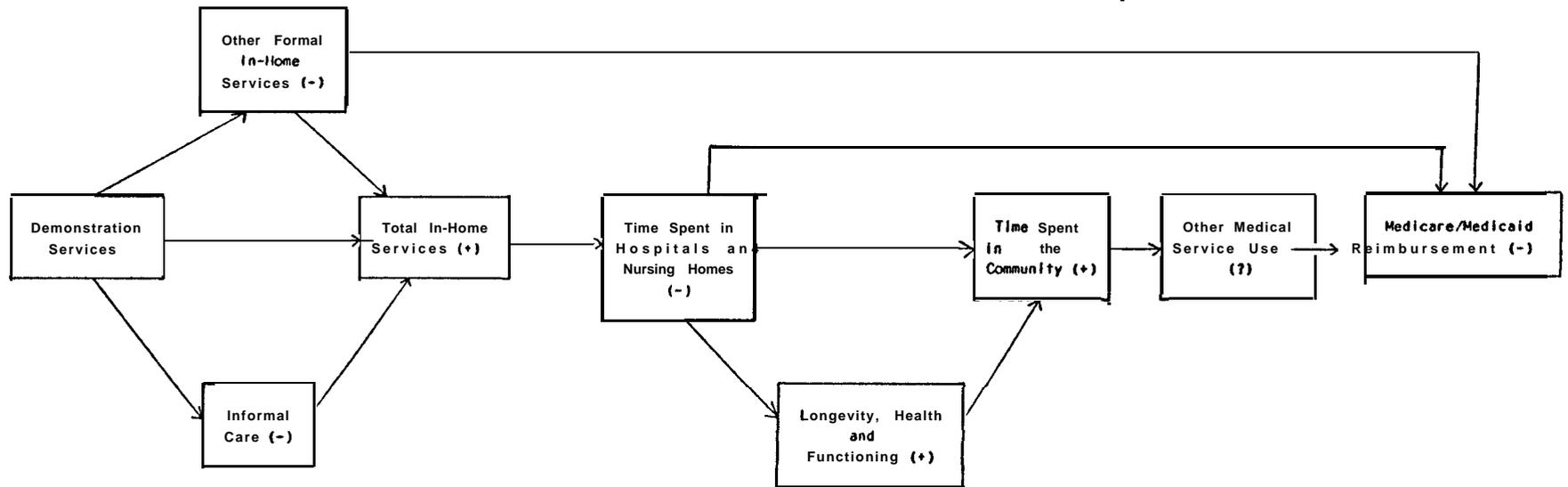
Other things equal, receipt of more home health care, either formal or informal, was expected to help reduce both time spent in hospitals and time spent in nursing homes. The expectation was that hospital stays could be shortened by the provision of home health care because clients could **recuperate** at home; and that nursing home stays could be prevented or postponed if more home health care were available. Longevity and health and functional ability are both shown as beneficially affected by the demonstration. This is because the better care that clients were expected to receive was expected to help them stay healthier and, thus, to improve **functioning**.<sup>6</sup> Expected demonstration effects on use of other medical services (i.e., visits with doctors, nurses, and medical therapists) are not clear a priori. If service clients spent more time in the community as a result of the demonstration or if demonstration aides themselves encouraged such visits, then an increase could be anticipated. At the same time, some visits with health professionals could be rendered unnecessary by the preventive health maintenance and monitoring of safety conditions performed by the home health aides.

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<sup>5</sup>At the time care plans were developed with service clients, agreements were reached with members of the client's informal support network to continue to provide care.

<sup>6</sup>The expected reduction in institutionalization was not necessarily expected to improve functioning. On the one hand, clients who could function in the community given the proper support networks might lose functional abilities and even die upon being admitted to a nursing home. But on the other hand, some clients might improve in nursing homes because they got attention and services they did not get at home.

Figure 11.1, Expected Effects of Demonstrations on Clients



Not?: Signs in the boxes indicate direction of net expected effects.

Medicare and Medicaid reimbursements were expected to be affected by the demonstration through several mechanisms. Reimbursements for home health care **were** expected to be reduced because of substitution of demonstration services for other formal services that would have been covered at least in part by Medicare and Medicaid. Reimbursements for hospital care (mostly Medicare) and for nursing home care (mostly Medicaid) were **expected** to be reduced if clients spent less time in these institutions. The effect on other reimbursements is not clear a priori, but in any case was not expected to increase enough to outweigh the expected effects of reduced hospital and nursing home use.

The sections that follow summarize the findings of the evaluation with respect to utilization of formal in-home services, receipt of informal care, substitution of formal services for informal care, longevity, hospital care, nursing home care, use of other medical services, Medicaid and Medicare reimbursements, and health status and physical functioning.<sup>7</sup>

#### Formal In-Home Services

The demonstration was expected to affect client outcomes by increasing the total amount of in-home care received by service clients. It is important, therefore, to measure the extent to which this increase occurred. In this regard, and throughout our analyses, it is important to remember that the demonstration projects were implemented in environments where other formal in-home services were available. It is also true that not all clients assigned to the treatment group received demonstration services. Thus, the demonstration effect on formal in-home care is appropriately measured as the difference between the average amount of formal in-home services received by all service clients (from demonstration and nondemonstration sources) and those received by client controls, whose

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<sup>7</sup>All of the estimated effects presented in this chapter are measured per client served by the demonstration, rather than per client assigned to the service group. We thus attribute all demonstration effects to those clients who actually received demonstration services, on the assumption that the demonstration had no effect on clients assigned to the service group who received no demonstration services.

experience represents the outcomes that service clients could have expected in the absence of the demonstration.

The amount of formal in-home services received by a client or group of clients can be thought of as consisting of three factors: whether any services were provided; if so, for what duration of time, **and with** what intensity during the period they were provided. The demonstration could be expected to affect each of these factors in different ways. The proportion of clients receiving any formal in-home services increased substantially and significantly in all seven demonstration States, with the increase ranging from 28 percentage points (in Ohio) to 73 percentage points (in Arkansas). Although the demonstration did not take a population that would have received no services and provide some services to all of them, it certainly increased markedly the probability of receiving formal services.

Smaller, but still significant, increases were found in all States in the duration of formal in-home services among those clients who received them. The increases ranged from 16 percent of the **followup** period (New York) to 36 percent of the **followup** period (Arkansas). The intensity of formal **in-**home services during the months in which they were received also increased significantly, by amounts ranging from 16 hours per week (Ohio) to 13 hours per week (Arkansas).

The overall rate of formal care captures the effects of all these factors. The rate of formal care is the average number of hours of service per week, across all clients (including clients who received no services) and all weeks (including weeks when no service was received). As shown in the first column of Table 11.1, the average rate of formal care among client controls ranged from less than 1 hour per week in Arkansas to nearly 4 hours per week in New York. Demonstration effects (second column) were statistically significant in every State, ranging from 1.51 hours per week in Kentucky to 10.36 hours per week in South Carolina. Although these effects are large relative to the amount of care received by client controls, in no State do they represent an extremely intensive treatment.'

#### Informal Care

Informal care is the care provided by household members, relatives, and friends. The estimated differences in the proportions of service clients

and controls receiving informal care from members of the client's household were small--all within plus or minus a few percentage points--and none was statistically significant.

There were significant demonstration effects on informal care from nonhousehold sources, however. Service clients in five States--Arkansas, Kentucky, Ohio, South Carolina, and Texas--were significantly less likely than client controls in those States to receive such care, by amounts ranging from 5 to 12 percentage points. Furthermore, among those who were receiving informal care from friends and relatives outside the household at the time of the **followup** interview, service clients received significantly fewer hours per week of care than client controls in all States but New York. As shown in column **(3)** of Table 11.1, the average rate of informal services from nonhousehold sources ranged among client controls from around 4 hours per week in Arkansas, New York, Ohio, and Texas, to about 5 hours in Kentucky and New Jersey, to nearly 8 hours per week in South Carolina.

Clients who received demonstration services received significantly less informal care than client controls in Ohio and **South** Carolina, a difference of nearly three-quarters of an hour per week Ohio and 1.78 hours per week in South Carolina, as shown in column (4). There were no significant effects on informal care in the other demonstration States.

#### Augmentation versus Substitution

The effects of the demonstrations in increasing formal care to clients were larger than the effects in decreasing informal care. As seen in column **(6)** of Table 11.1, statistically significant increases in total **in-**home care were experienced in six of the seven. The extent to which reductions in informal care offset the increases in formal care is measured by the degree of substitution--that is, the percentage of the increase in formal care that substituted for lost informal care rather than augmenting the total hours of care received. The degree of substitution, as shown in the final column of Table 11.1, ranged from 0 in New York and Texas to 31 percent in Ohio and 40 percent in Kentucky. In New Jersey, 6 percent of formal care substituted for informal care, and in Arkansas and South Carolina, **15** percent.

Table 11.1. Formal In-Home Services and Informal Care  
(hours per week, all clients served)

	Average Rate of Formal In-Home Services		Average Rate of Informal Services from Non-Household Sources		Average Rate of Formal Plus Non-Household Informal Services		Percent of Substitution <sup>a</sup>
	Control Mean	Experimental Effect	Control Mean	Experimental Effect	Control Mean	Experimental Effect	
	(1)	(2)	(3)	(4)	(5)	(6)	
Arkansas	0.78	5.90***	4.40	-0.74	5.30	5.04***	15%
Kentucky	1.25	1.51***	5.26	-0.59	6.26	0.91	40
New Jersey	2.19	4.07***	4.69	-0.64	6.59	3.82***	6
New York	3.91	7.46***	3.84	0.60	7.99	8.56**	0
Ohio	2.47	1.79***	3.97	-0.71*	6.26	1.23**	31
South Carolina	2.46	10.36***	7.52	-1.78**	9.48	8.81***	15
Texas	2.32	4.47***	4.30	-0.21	6.42	4.73***	0

SOURCE: Burstein and Olinger, Clients' Receipt of Formal In-Home Services and Informal Care (1980), Tables 3.4, 4.4, 4.5, and 4.6.

NOTE: Column (1) plus Column (3) do not sum exactly to Column (5) because of differences in samples and construction of variables.

<sup>a</sup>[Column (2) - Column (6)]/Column (2).

\*\*\* Statistically significant at the 1 percent level.

\*\* Statistically significant at the 5 percent level.

\* Statistically significant at the 10 percent level.

Thus, most or all of the increase in formal care associated with being in the service group translated into an increase in total in-home care.

### Survival

Between 14 and 19 percent of the client controls in each State died during the **12-month** period after initial assessment over which client outcomes were measured. As shown in Table 11.2, on average client controls survived approximately 90 percent of the **followup** period. There were no significant demonstration effects on the fraction of the **followup period** survived.

### Hospital Care

Although it was not anticipated that demonstration services could prevent hospital admissions, it was expected that they could reduce average length of stay by enabling service clients to be discharged more quickly to recuperate at home. No significant service-control differences were found in the proportion of clients hospitalized, in the mean number of hospital admissions, or in the average length of hospital stay.

Client controls in the various States spent on average between 3 and 5 percent of the **followup** period in the hospital, as can be seen in the third column of Table 11.2. The only significant demonstration effect on time spent in the hospital over the entire **12-month followup** period was an increase of 4.4 percentage points in New York. For the first 6 months after assessment, there was a significant reduction of 1.0 percentage point in the proportion of time spent in hospitals in New Jersey (i.e., about Z-days over a 6-month period).

### Nursing Home Care

As noted, a primary goal of the client component of the demonstration was to prevent or delay nursing home admissions. This goal was not achieved. Only 8 to 16 percent of client controls in the demonstration States were admitted to nursing homes during the **followup** period, and the average fraction of the **followup** period spent in nursinghomes by client controls was only 4 to 5 percent (see Table 11.2, fifth column). Thus, there was **little** scope for significant reductions in institutionalization. In fact, there were

Table 11.2. Percent of Followup Period Survived, Spent in Hospital, Spent in Nursing Home

	Survived		In Hospital		In Nursing Home	
	Control Mean	Demonstration Effect	Control Mean	Demonstration Effect	Control Mean	Demonstration Effect
Arkansas	89.9	0.8	2.7	0.5	4.6	-1.3
Kentucky	90.4	-0.3	2.8	0.1	5.2	-0.9
New Jersey	88.6	0.7	5.0	-0.6	5.1	-0.8
New York	91.3	3.0	4.1	4.4*	3.5	-2.2
Ohio	90.7	1.1	2.9	0.1	4.4	1.1
South Carolina	89.1	0.0	3.5	-0.4	5.3	0.9
Texas	89.3	1.8	2.6	0.3	3.8	-0.5

SOURCE: Burstein, Client Mortality, Institutionalization, and Utilization of Outpatient Professional Services (1986), Tables 3.3, 4.4., and 5.2.

- \*\*\* Statistically significant at the 1 percent level.
- \*\* Statistically significant at the 5 percent level.
- \* Statistically significant at the 10 percent level.

no significant impacts of the demonstration on either the proportion of clients institutionalized or the fraction of the **followup** period spent in nursing homes. Even when the results for the first 6 months of the **followup** period were examined separately, no large or significant treatment effects appeared.

We also analyzed whether the demonstration might have had an effect **for** certain subgroups of the population who were more likely to be admitted to nursing homes. Six groups at relatively high risk of institutionalization were identified: the very old (**80** years of age or older), the mentally or physically impaired, the very old who lived alone, the very old who were mentally or physically impaired, the very old who lived alone and were impaired, and clients who had spent time in a nursing home within the 6 months preceding assessment.

These subgroups did indeed tend to have higher rates of institutionalization than the demonstration population as a whole. The demonstration did not succeed, however, in significantly reducing the likelihood of nursing home admissions in these subgroups with the exception of the very old, and the very old and impaired, in the State of New York--a finding that was based on only 15 institutionalizations. Among clients who were very old and living alone--between 13 and 17 percent of the client population depending on the State--the demonstration did have consistently negative estimated effects on the proportion admitted to nursing homes. Although the treatment-control differences were not statistically significant in any State, the consistency of direction of the estimated effects suggests that there might have been an effect, but that the sample sizes for this subgroup were too small for it to be detected with confidence.

#### Other Medical Services

Impacts of the demonstration on clients' utilization of professional health care--i.e., the services of doctors, nurses, or other licensed health professionals--were quite minor. The only statistically significant effect on number of visits in any of these categories in any State was a greater number of service clients than client controls in **Kentucky** seeing a licensed health professional other than doctor or nurse in their home in the 2 months preceding the **followup** interview.

## Medicare and Medicaid Reimbursements

As shown in Table 11.3, average total Medicare reimbursements for client controls ranged from about \$600 per client per quarter in Kentucky to about \$1,600 per client per quarter in New Jersey. In every State, the great bulk of reimbursement was for hospital costs. Average **Medicaid reimbursements** for client controls were much smaller, ranging from around \$80 in Arkansas to around \$250 in Kentucky, New Jersey, Ohio, and South Carolina.<sup>8</sup> In Arkansas, New Jersey, and South Carolina, these reimbursements were mostly for nursing home care. Hospital care was the most important Medicaid cost category in Kentucky, Ohio, and **Texas**.<sup>9</sup>

Given the almost negligible effects of the demonstration on time spent in hospitals and nursing homes, major reductions in Medicare and Medicaid reimbursements are unlikely to have occurred. By and large they did not, as Table II.3 shows. There were, however, several effects of note:

- In New Jersey, Medicare reimbursements were significantly reduced, by \$239 per client served per quarter. This effect showed a significant tendency to decline with time since random assignment, and three-quarters of it was due to a statistically significant decrease in hospital reimbursements. This corroborates the findings on time spent in hospitals in New Jersey.
- Significant reductions in Medicaid reimbursements were found for both Arkansas (\$40 per client served per quarter) and South Carolina (\$59 per client served per quarter). In the case of Arkansas, there was a significant tendency for the Medicaid savings to increase over time since random assignment, and the savings can be attributed almost entirely to reductions in nursing home costs.
- In every State except Kentucky, there were statistically significant savings on home health care in the Medicare program, the Medicaid program, or both. This shows that the demonstration was

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\*Medicaid data were not collected in New York because of the small client samples available for analysis.

<sup>9</sup>The cost categories shown do not sum to the totals because of the existence of a residual category which includes outpatient care, prescription drugs, and other miscellaneous services.

Table 11.3. Medicare and Medicaid Reimbursements  
(per client served per quarter)

	Medicare		Medicaid	
	Control Mean	Demonstration Effect	Control Mean	Demonstration Effect
Arkansas				
Total	\$1095	<b>-\$39</b>	<b>\$81</b>	<b>-\$40**</b>
Hospital	728	<b>50</b>	8	1
Nursing home	16	-10	54	<b>-35**</b>
Home health	126	<b>-75***</b>	<b>5</b>	-3
Kentucky				
Total	624	32	252	1
Hospital	453	27	90	-8
Nursing home	12	0	35	-2
Home health	62	-6	83	8
New Jersey				
Total	1599	<b>-239***</b>	253	-30
Hospital	1218	<b>-178**</b>	59	-17
Nursing home	19	-4	118	-6
Home health	140	<b>-30***</b>	27	<b>-13**</b>
New York				
Total	1038	-30	a	a
Hospital	667	103		
Nursing home	10	-11		
Home health	170	-107"		
Ohio				
Total	888	-66	245	13
Hospital	670	-60	93	-14
Nursing home	15	-4	81	26"
Home health	62	<b>-9*</b>	8	-1
South Carolina				
Total	761	25	251	<b>-59**</b>
Hospital	489	43	57	-1
Nursing home	15	-1	95	-35
Home health	182	<b>-54***</b>	35	<b>-21***</b>
Texas				
Total	1064	26	<b>99</b>	<b>0</b>
Hospital	762	52	38	8
Nursing home	9	-4	21	0
Home health	128	-18	20	<b>-12***</b>

SOURCE: Burstein and Branagan, Client Medicare and Medicaid Reimbursements (1986), Tables 3.4, 3.5, and 4.1-4.6.

<sup>a</sup>Medicaid data not collected in New York.

\*\*\* Statistically significant at the 1 percent Level.

\*\* Statistically significant at the 5 percent Level.

\* Statistically significant at the 10 percent level.

paying for services that would otherwise have been paid for at least in part by the Medicare and Medicaid programs.

Although these findings tell a coherent story, the effects are not very large. In order for the client component of the demonstration to have saved money from the taxpayers' point of view, Medicare and Medicaid savings would have had to be greater than the cost of demonstration services. However, combined Medicare and Medicaid net costs of home health care reimbursements were reduced only in Arkansas, New Jersey, and Ohio; and the greatest reduction--in New Jersey--was less than \$3.00 per client served per day. If this is less than the daily cost of demonstration services, then the client component of the demonstration did not pay for itself even in New Jersey. The relationship between demonstration costs and taxpayer savings is examined in Chapter IV.

#### Health and Functioning

Demonstration clients were selected, in large part, on the basis of physical and functional impairment as measured in the initial assessment. In terms of dependence in Activities of Daily Living (**ADL**), clients in this demonstration were more impaired than those in 9 of 13 previous long term care demonstrations for which comparable data are available.

A sample of 40 percent of the service clients and 20 percent of the client controls who had been assessed before July 1984 was reassessed beginning in May 1985, to determine demonstration effects on health and physical functioning. Sample sizes were too small to provide\_ reliable **State-**specific estimates of effects for individual States. Estimated effects are, therefore, based on the combined sample for the six States that had begun serving clients by July 1984 (**all** except New York).

The demonstration had significant effects on several measures of unmet client needs. There were significant decreases among service clients relative to controls in the average number of Activities of Daily Living (**ADL**) in which more help was needed; in the average number of Instrumental Activities of Daily Living (**IADL**) in which more help was needed; and in the proportions of clients experiencing unmet need for any medical appliance, for in-home medical equipment, or for skilled health services.

Table II.4 shows the demonstration effects on a number of final outcome measures pertaining to health and functional abilities. Clients served by the demonstration were found to be totally dependent in significantly fewer ADL and IADL than client controls at the time of reassessment (on average, about 20 months after the initial assessment). For ADL, which are measured on a scale of 0 to 5, the difference was .1, about 17 percent of the control group mean. For IADL, which are measured on a scale of 0 to 13, the difference was .5, about 9 percent of the control group mean. This suggests that demonstration services may have encouraged clients to help with ADL functions that would otherwise have been performed entirely by others, and to help with IADL functions that would otherwise have been performed entirely by others or not performed at all. Since the demonstration had no effect on the numbers of ADL or IADL in which clients were totally independent, demonstration services did not enable partially dependent clients to dispense with assistance.

Service clients were also significantly better oriented than client controls at reassessment, based on a set of nine questions administered to them. Clients who received demonstration services averaged .5 more correct answers than client controls, an improvement of about 7 percent over the control group mean.

Self-reported health status was measured on a four-point scale: excellent, good, fair, and poor. Clients served by the demonstration were significantly more likely than client controls to rate their own health higher at reassessment than they had at initial assessment. The difference was 5.7 percentage points. This outcome measure almost certainly captures psychological as well as physical well-being.

Finally, demonstration service clients were significantly less likely than client controls to have **deteriorated** in speech and communication between initial assessment and reassessment, but no less likely to have deteriorated in other faculties (vision, hearing, and judgment); they were significantly less likely than client controls to have had a specific medical condition worsen in the 12 months prior to reassessment; and there were no significant differences between the two groups in restriction of activities in the 2 months preceding reassessment.

Table 11.4. Health and Physical Functioning  
(combined six-State sample)

	Control Mean	Demonstration Effect
<b>Activities of Daily Living (ADL)<sup>a</sup></b>		
Average number in which independent	3.3	0.0
Average number in which totally dependent	0.6	-0.1*
<b>Instrumental Activities of Daily Living (IADL)<sup>a</sup></b>		
Average number in which independent	5.1	0.0
Average number in which totally dependent	5.3	-0.5***
<b>Orientation</b>		
Average number correct (9-question scale)	7.4	0.5*
<b>Self-Reported Health Status (percent)</b>		
Better	22.8	5.7**
Same	55.5	-5.8*
Worse	21.8	-2.6
<b>Faculties--Percent better<sup>b,c</sup></b>		
Vision same or better <sup>b,c</sup>	74.3	1.3
Speech same or better <sup>b,c</sup>	85.1	-1.9
Hearing same or better <sup>b,c</sup>	89.5	3.8*
Judgment same or better <sup>b,c</sup>	83.4	0.6
Communication same or better <sup>b,c</sup>	83.5	5.2**
<b>Medical Conditions--Percent</b>		
with one or more conditions		
Present at reassessment <sup>b</sup>	98.5	-0.6
New at reassessment	15.6	-1.2
Worse at reassessment	47.0	-5.1**
<b>Restricted Activities, last two months</b>		
Days in bed	10.7	0.3
Days of restricted activity <sup>b</sup>	22.3	0.0
Days of unrestricted activity	29.4	0.9

SOURCE: Orr and Visser, Client Health and Related Outcomes (1986), Table 4.8.

<sup>a</sup>Maximum number of ADL = 5; maximum number of IADL = 13.

<sup>b</sup>Effect measured as difference in raw means.

<sup>c</sup>Significance test performed on distribution as a whole.

\*\*Statistically significant at the 1 percent level.

\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

## Summary of Effects on Clients

The demonstration succeeded in providing services to many clients who otherwise would not have received them. The additional formal in-home services provided by demonstration aides, however, did not **reduce** institutionalization. The proportion of client controls who were admitted to nursing homes during the **followup period** was in no State higher than 16 percent. It is, therefore, not surprising that the demonstration had virtually no effects on time spent in nursing homes, or on survival, or on time spent in hospitals.

Analysis of Medicare and Medicaid data corroborates these findings. The only significant reduction in Medicare reimbursements was found for New Jersey, attributable to reduced hospital rather than nursing home costs; this effect declined over time. Arkansas and South Carolina experienced Medicaid cost reductions that were statistically significant, but the amounts involved were small.

With respect to health status and physical functioning, there were several significant beneficial effects. Relative to client controls, demonstration service clients were less dependent in **ADL** and **IADL**, scored better on orientation, and were more likely to have rated their own health higher at reassessment than at initial assessment.

### III. EFFECTS ON TRAINEES

The expected effects of the trainee component of the demonstration, and the relationships among them, are shown in Figure 111.1. The subsidized employment provided by the demonstration was expected to increase trainees' employment and earnings directly. Participation in demonstration training and employment was also expected to increase the wage rates trainees could command in the regular labor market. Higher wage rates were expected to increase earnings directly, as well as indirectly by increasing the trainees' willingness to look for work and, therefore, their probability of finding unsubsidized employment. Increased earnings were expected, in turn, to reduce public benefit receipt by trainees and to increase their self-esteem and psychological well-being. Demonstration effects on each of these outcomes are presented below. As in the client analysis, demonstration effects are measured as treatment-control differences.

#### Employment and Earnings

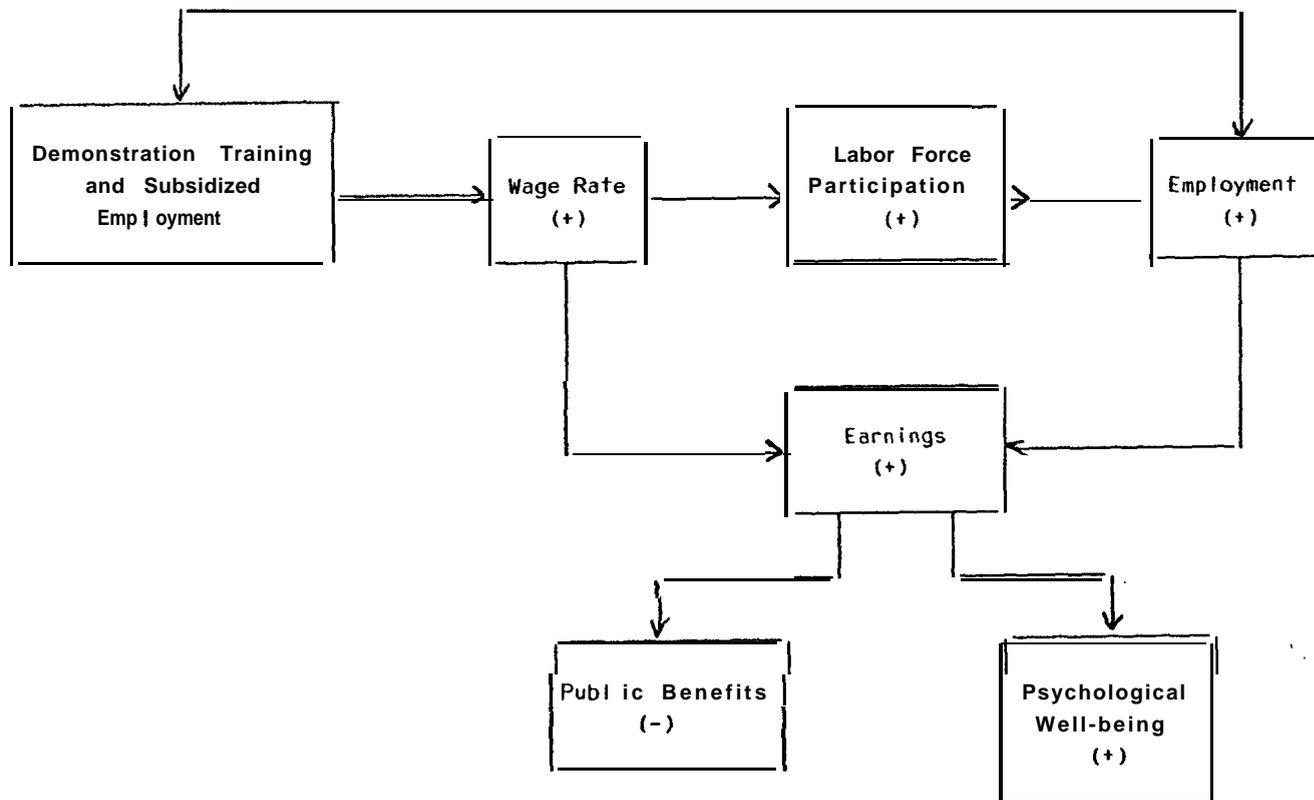
Positive effects on employment and earnings of trainees were expected through two routes--directly as a result of participation in subsidized employment, and indirectly as a result of increased success in regular (nondemonstration) employment.

Table III.1 shows estimated effects on total (demonstration and nondemonstration) monthly earnings per trainee assigned and per training entrant.<sup>10</sup> The latter estimate is the more appropriate measure of effects on those who actually participated in the demonstration. In six of the seven States, the demonstration increased the total monthly earnings of trainees. In these six States, the size of the earnings gain per training entrant (see second column) ranged from a low of \$121 per month in Arkansas to a high of \$215 per month in New Jersey and Ohio. This range represents between 56 and

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<sup>10</sup>These numbers are the combined average effect of the demonstrations on demonstration and nondemonstration earnings over the entire 30-month evaluation **followup** period.

Figure 111.1. Expected Effects of Demonstrations on Trainees



Note: Signs in the boxes indicate direction of net expected effect.

Table 111.1. Effects on Total Monthly Earnings  
(dollars)

	Per Trainee Assigned	Per Training Entrant
Arkansas	111***	121***
Kentucky	142***	146***
New Jersey	192***	215***
New York	36	38
Ohio	185***	215***
South Carolina	130***	140***
<b>Texas</b>	<b>106***</b>	<b>136***</b>

SOURCE : Enns, Bell, and Flanagan, Trainee Employment and Earnings (1986),  
Tables III.2 and 111.10.

\*\*\*Statistically significant at the 1 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

131 percent of control group average earnings. The earnings effects per trainee assigned were somewhat smaller in each State and substantially smaller in Texas (\$106 per month), which had the highest percentage of assigned trainees never begin training.

The time pattern of the earnings effects is shown in **Table 111.2**. During the months when the typical training entrant was still in training or subsidized employment (the demonstration period), the demonstration substantially increased total monthly earnings (which include demonstration wages) in all States except New York. During postdemonstration Year 1 (the first 12 months after the typical trainee left subsidized employment in each State) the earnings effects in Arkansas, Kentucky, New Jersey, Ohio, and South Carolina declined. This decline was not unexpected given that some trainees who had worked in subsidized employment did not find work in unsubsidized jobs and that a higher proportion of controls found work during the latter period. Overall, the range of effects on total monthly earnings across States narrowed considerably from the demonstration period (between \$96 per month in Texas and \$353 per month in New Jersey per training entrant) to postdemonstration Year 1 (between \$62 per month in New York and \$220 per month in Ohio per training entrant). During postdemonstration Year 2 the effects on total earnings declined even further in all States except Kentucky and Texas. In New York and South Carolina, the estimated effects in postdemonstration Year 2 were no longer statistically significant. In the other five States, they ranged from \$95 to \$194 per training entrant or from 45 to 114 percent of the control group average.

As noted, the results just presented include the trainees' earnings in demonstration employment. The effects on nondemonstration employment and earnings are shown in **Table III.3.**<sup>11</sup> During postdemonstration Year 1, only two States--New Jersey and Ohio--showed significant effects on both the percent of trainees employed in nondemonstration jobs and the number of hours worked per month in nondemonstration employment. In postdemonstration Year 2, these two States plus Arkansas and Texas showed significant effects on the

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<sup>11</sup>This term is used, rather than postdemonstration employment, for two reasons. First, it includes any nondemonstration employment of trainees during their training and subsidized employment. Second, all employment of controls is by definition nondemonstration employment.

**Table 111.2.** Time Pattern of Effects on Total Monthly Earnings  
(dollars per training entrant)

	Demonstration Period	Postdemonstration Year 1	Postdemonstration Year 2
Arkansas	141***	128***	95***
Kentucky	171***	117***	155***
New Jersey	353***	172***	122***
New York	22	62**	12
Ohio	273***	220***	121***
South Carolina	268***	83***	21
Texas	96**	109***	194***

SOURCE: Enns, Bell, and Flanagan, Trainee Employment and Earnings (1986), Table 111.3, with adjustments for trainees who did not enter training.

NOTE : Total monthly earnings of the trainee group includes both demonstration and nondemonstration earnings. The demonstration period is defined for each State as the number of months from assignment until the typical trainee left subsidized employment. Postdemonstration Year 1 for each State is the 12 months following the end of the demonstration period. Postdemonstration Year 2 is all months in the **followup** period after Year 1.

\*\*\*Statistically significant at the 1 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

Table 111.3. Effects on Nondemonstration Employment, Hours, and Earnings of Training Entrants

	<u>Percent Employed</u>		<u>Hours Worked</u>		<u>Earnings per Month (\$)</u>		<u>Hourly Wage Rate (cents)</u>	
	Postdemonstration		Postdemonstration		Postdemonstration		Postdemonstration	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Arkansas	3	19***	3	22***	10	95***	32***	29**
Kentucky	0	2	3	11	28**	155***	47***	86***
New Jersey	9***	11***	14***	22***	79**	122**	27***	10
New York	-2	-12	-9'	-10	-37	12	9	88**
Ohio	6***	13***	15***	27***	70***	110***	8	-6
South Carolina	3	4	5	-3	26**	20	88***	64***
Texas	-2	24***	1	43***	8	192***	-7	-38*

SOURCE: Enns, Bell, and Flanagan Trainee Employment and Earnings (1986), Tables 111.5, 111.6, 111.7, and 111.8, with adjustments for trainees who did not enter training.

NOTE: Postdemonstration Year 1 is defined as the 12-month period following the time when a typical trainee left subsidized employment. Postdemonstration Year 2 includes a 12 months in the followup period after Year; 1.

\*\*\*Statistically significant at the 1 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

same two outcomes. Significant effects on the proportion employed in postdemonstration Year 2 ranged from 11 to 24 percentage point increases in New Jersey and Texas, respectively (29 to 86 percent increases over the control group means). Increases in hours worked over the same period ranged from 22 to 43 hours per month in New Jersey and Texas, respectively (37 to 116 percent of the control group means).

Effects on nondemonstration earnings were positive in four States during postdemonstration Year 1 and in five States during Year 2. Effects in Year 1 ranged from \$26 per month in South Carolina to \$79 per month in New Jersey; in Year 2 they ranged from \$95 per month in Arkansas and Ohio to \$192 per month in Texas. These increases represent from 45 to 113 percent of the average earnings in the control group.

Effects on the hourly wage rates of trainees in nondemonstration employment are shown in the last two columns of Table 111.3.<sup>12</sup> In Arkansas, Kentucky, and South Carolina, positive effects on wage rates occurred throughout the postdemonstration period, ranging between 29 cents and 88 cents per hour (8 to 16 percent of the control group means). In New Jersey and New York, wage rates increased during only part of the followup period and in Ohio and Texas not at all. Wage gains were greatest in the southern and mostly rural States where, in general, wage rates are low relative to the more urban States.

In addition to improving the employment, earnings, and wage rates of trainees, the demonstration might be expected to have changed job search activity and increased overall labor force participation. Substantial gains in labor force participation did indeed occur while trainees were working in subsidized employment. Those gains were shortlived, however, as job search and labor force participation rates for the trainee group returned to near the level of those for the control group during the 2 postdemonstration years.

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<sup>12</sup>The estimated effects on wage rates presented here have been adjusted to take account of differences in characteristics between the subsets of trainees and controls who worked in nondemonstration jobs--the only sample members for whom wage rates can be observed.

## Effects on Public Benefits

The effects of the demonstration on public benefits were consistent with the effects on total earnings. **All** seven demonstration projects moved a significant proportion of trainees off AFDC and, in most cases, reduced the average benefit amount received from AFDC. In four of the seven States, the demonstration also moved significant proportions of demonstration trainees off the Food Stamp Program and reduced the average food stamp benefit amount. Average Medicaid benefits over the evaluation **followup** period as a whole were not significantly affected in any of the States, at least in part because Medicaid eligibility for trainees was automatically extended to cover the period of subsidized employment.

Table III.4 summarizes the effects of the demonstration on the percentage of training **entrants** receiving benefits from the AFDC and Food Stamp Programs, and the two programs combined, in a typical month during the **followup** period. Benefit receipt for both programs combined was reduced by 13 to 14 percentage points (15 to 16 percent of the control group means) in New Jersey, Ohio, and South Carolina. Benefit receipt rates dropped most sharply in the AFDC program (**26** to 29 percentage points for the same three States and for Kentucky, or 34 to 51 percent of the control group means), and less sharply for food stamps (**3** to 15 percentage points for the same four States, or 5 to 19 percent of the control group means).

Table III.5 presents the estimated effects of the demonstration on the average monthly benefit amount received by training entrants from the AFDC and Food Stamp Programs, and from the two programs combined. Here again, New Jersey, Ohio, and South Carolina show the largest benefit reductions under both programs combined--with savings ranging from \$94 to \$110, or 26 to 39 percent of the average benefit amount received by members of the control group. Arkansas, Kentucky, and Texas also achieved significant though smaller benefit reductions (\$26 to \$71) for the two programs combined. Most of the savings occurred in the AFDC program, where monthly benefit reductions ranged from \$18 to \$106 across the six States (**18** to 52 percent of the control group means). Food stamp savings were much smaller, ranging from \$8 to \$42 (**6** to 27 percent of the control group means). In New Jersey and New York there were very small, though statistically significant, increases in food stamp benefits.

Table 111.4. Effects on Percent of Training Entrants Receiving Public Benefits (percentage points)

	AFDC	Food Stamps	AFDC and Food Stamps
Arkansas	-13***	-1	-6***
Kentucky	-28***	-3**	-9***
New Jersey	-26***	-11***	-14***
New York	-3**	5***	0
<b>Ohio<sup>a</sup></b>	-27***	-15***	-13***
South Carolina	-39***	-8***	-14***
Texas	-11***	-1	-2*

SOURCE : Bell, Trainee Public Program Benefits (1986), Table 111.7.

<sup>a</sup>Effects on food stamp benefits and combined AFDC and food stamp benefits are for Butler and Hamilton counties only; computerized food stamp data were not available for other demonstration counties.

\*\*\*Statistically significant at the 1 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

Table 111.5. Effects on Monthly Benefit Amount  
(dollars per training entrant)

	AFDC	Food Stamps	AFDC and Food Stamps
Arkansas	-31***	-16***	-47***
Kentucky	-52***	-17***	-71***
New Jersey	-106***	12***	-94***
New York	-2	6	4
<b>Ohio<sup>a</sup></b>	<b>-84***</b>	<b>-28***</b>	<b>-101***</b>
South Carolina	-68***	-42***	-110***
Texas	-18***	-8***	-26***

SOURCE: Bell, Trainee Public Program Benefits (1986), Table 111.6.

<sup>a</sup>Effects on food stamp benefits and combined AFDC and food stamp benefits are for Butler and Hamilton counties only; computerized food stamp data were not available for other demonstration counties.

\*\*\*Statistically significant at the 1 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

Table III.6 shows the timepath of effects on the combined AFDC and food stamp monthly benefit amount received by the typical training entrant. Average monthly benefits were significantly reduced during the demonstration period in all States except New York, by amounts ranging from \$20 to \$170 per trainee assigned (**6 to 36 percent of the control group means**). In five of the six States, benefit reductions in postdemonstration Year 1 were larger than during the demonstration period. There are three reasons why there were greater reductions in the later period. First, the demonstration period included the training phase and time spent waiting for training or subsidized employment to begin, **when demonstration** wages were intermittent or not paid at all. Second, even once trainees began receiving wages, benefits were adjusted with a **1-** to 2-month lag. Third, the AFDC and food stamp benefit formulas reduced benefits less in the first 4 months of earnings than thereafter. For four of the seven States, significant benefit reductions of \$37 to \$86 per month continued into postdemonstration Year 2. These reductions amounted to savings of 25 to 33 percent of the average benefits received by trainee controls.

The month-by-month pattern of combined AFDC and food stamp benefits (not shown) is relatively consistent across States: a sharp drop in trainee benefits during the demonstration period and a much more gradual decline in benefits for the control group over most of the **followup** period. Control group benefits eventually dropped to the level of trainee benefits in three States (New Jersey, New York, and Texas); but in the other four States **long-** term effects continued until the end of the **followup** period, a full 30 months after assignment.

The month-by-month pattern of outcomes also sheds some light on the general absence of demonstration effects on both public benefits and employment outcomes in New York. In that State, the earnings of control group members rose, and their welfare dependence fell, more rapidly than in most other States. This may reflect better employment opportunities for low-wage workers in general or more abundant employment services for AFDC recipients in particular. In any case, even though the earnings of the trainees who participated in the demonstration increased **markedly** over time, and their

Table 111.6. Time Path of Effects on Combined AFDC and Food Stamp Monthly Benefit Amount (dollars per trainee assigned)

	Demonstration Period	Postdemonstration Year 1	Postdemonstration Year 2
Arkansas	-20***	-63***	-49***
Kentucky	-87***	-88***	-37***
<b>New Jersey</b>	<b>-170***</b>	<b>-119***</b>	<b>3</b>
New York	37***	-18	8
Ohio (AFDC only) <sup>a</sup>	-92***	-97***	-56***
South Carolina	-99***	-131***	-86***
Texas	-26***	-53***	1

SOURCE: Bell, Trainee Public Program Benefits (1986), Table IV.2, with adjustments for trainees who did not enter training.

NOTE: The demonstration period is defined for each State as the number of months from assignment until the typical trainee left subsidized employment. Postdemonstration Year 1 for each State is the 12 months following the end of the demonstration period. Postdemonstration Year 2 is all months in the **followup** period after Year 1.

<sup>a</sup>Computerized food stamp data were only available in two counties in Ohio.

\*\*\*Statistically significant at the 17 percent level.

\*\*Statistically significant at the 5 percent level.

\*Statistically significant at the 10 percent level.

dependence on welfare declined correspondingly, they fared little better than they would have in the absence of the demonstration, as evidenced by the control group experience.

### Psychological Well-being

By increasing trainees' self-sufficiency and reducing their dependence on welfare, the demonstration was expected to improve trainees' psychological well-being. The evaluation measured effects on three aspects of psychological well-being: self-esteem, efficacy/fate control, and life satisfaction. In only one State (Ohio) were there significant effects on trainee self-esteem, and in only one (South Carolina) was there a significant effect on efficacy/fate control. These effects were in the expected (beneficial) direction, but were quite small. Significant demonstration effects on overall satisfaction with life were more pervasive and somewhat larger. In four States (New Jersey, Ohio, South Carolina, and Texas) the proportion of trainees who responded that they had gotten mostly what they had hoped for out of life was 8 to 12 percentage points larger than among controls. There were no significant effects on any of these three measures in Arkansas, Kentucky, or New York.

### Trainee Applicant Characteristics, Selection, and Performance

It is clear from the results presented here that, in most States, the trainee component of the demonstration was successful in increasing the employment and earnings of participants and in reducing their dependence on welfare. Interesting questions remain regarding the relationship between the trainee selection process and the performance of trainees during and after the demonstration. During the selection process, was there a systematic relationship between applicant characteristics and their perceived potential as homemaker-home health aides? Did intake workers select the applicants who would perform best or benefit most from the demonstration experience? And, with the benefit of hindsight, was there a set of identifiable characteristics that could have been used to better predict trainee success? The evaluation was able to shed some light on all these questions.

With respect to the relationship between applicant characteristics and their perceived potential as aides, it is clear that in every State

unmeasured factors (such as perceived motivation) weighed more heavily in intake workers' assessments than did easily measured factors. Typically, Less than **15** percent of the variation among trainees in intake worker ratings of applicants' potential can be explained by a set of measured baseline characteristics that includes demographic characteristics **and** prior caregiving and work experience.

Among the baseline characteristics examined, education had the most consistent influence on intake worker ratings of potential and the probability of participating in the demonstrations, with significant **and** often large positive effects in five States. Employment and caregiving experience measures, taken as a group, also had significant effects on the probability of participation in most States, although the effects of individual employment and caregiving variables were Less significant and somewhat inconsistent across States.

To determine which factors contributed most to success within the demonstrations, we analyzed the predictive power of measured characteristics and intake worker ratings of applicants' potential in explaining inprogram performance. All factors taken together explained a relatively small share of the variation in performance ratings among trainees during classroom training, practicum, and subsidized employment in every State. Potential ratings alone were best able to predict classroom performance (although they still explained less than 6 percent of the total variation in performance among trainees), but had virtually no value as predictors of performance in subsidized employment. Measured baseline characteristics accounted for a good deal more of the total variation in performance, but rarely raised the percent of explained variation above 15 percent in any State.

The usefulness of measured baseline characteristics and trainee potential ratings for predicting trainee earnings and public benefits and the impact of the demonstrations on those outcomes was also examined. Potential ratings alone accounted for 1 to 10 percent of the variation in earnings and public benefits outcomes within each State's trainee and control groups. Applicants with higher potential ratings had consistently higher earnings and lower AFDC and food stamp benefits, whether or not they were members of the treatment group. however, they did not benefit more from the demonstration than trainees with Lower potential ratings. Evidently, the demonstration did

not systematically select applicants with the greatest potential to benefit from the demonstration experience.

With the exception of prior education (which had a consistently positive influence), intake workers were unable to identify reliable indicators of future success. This was due in no small part to the fact that even with the benefit of hindsight, measured characteristics at intake provided little useful information which would have reliably predicted success.

#### Summary of Effects on Trainees

The demonstrations substantially increased total monthly earnings during the period when the typical training entrant was still in training or subsidized employment in all States except New York, where there were virtually no effects of the training component of the demonstration. Earnings effects during postdemonstration Year 1 were still positive, though smaller, in all States except Texas and New York. During postdemonstration Year 2, earnings effects were still positive and statistically significant in all States except New York and South Carolina, and in Kentucky and Texas they were higher than in the first postdemonstration year.

The effects on AFDC and food stamp benefit receipt were consistent with the beneficial effects on earnings. In all States except New York, there were substantial reductions in the percent receiving AFDC benefits and in the amounts received. The same was true of food stamps in four of the seven States.

There were small beneficial effects on one or more aspects of trainee psychological well-being in **all** States except Arkansas and Kentucky. The Largest and most consistent psychoLogical,effect was on trainees' overall satisfaction with their lives.

#### IV. BENEFITS AND COSTS

The benefits and costs of the client and trainee components separately, and of the two components taken together, are summarized in this chapter. A detailed benefit-cost analysis is provided in Orr (1987).

##### Analytic Approach to Benefit-Cost Analysis

The fundamental question addressed in the benefit-cost analysis is: Does the total value-of the beneficial effects of the demonstration, relative to what would have occurred in its absence, exceed the value of the additional resources (net of evaluation costs) required to run the program? From a policy perspective, therefore, we are not examining whether in-home care per se has positive benefits compared with no in-home care. We are measuring the net benefits of devoting additional resources to in-home care, over and above the in-home care already being provided.

As in most public programs, the benefits and costs of the demonstrations are likely to accrue to different people. Therefore, we assess benefits and costs from three perspectives: that of society as a whole; that of participants and their families; and that of taxpayers. Net benefits are benefits minus costs. Net benefits to society are the sum of net benefits (or net costs) to participants and net benefits (or net costs) to taxpayers. Programs are generally viewed as worthwhile if they yield positive net benefits from society's perspective, as long as the distribution of their benefits and cost between participants and taxpayers is acceptable.

Measurement of benefits and costs is further complicated for the AFDC Homemaker-Home Health Aide Demonstration because it tested two program interventions simultaneously. For policy purposes, it is useful to know the net benefits of each of the two components separately, as **well** as in combination, since either component could be implemented as a separate program. Accordingly, we present three sets of net benefit estimates. Note that the net benefits of the demonstrations as a whole are not the simple sum of the net benefits of their client and trainee components. This is because the value of services to clients and the costs of service provision necessarily

appear in the separate accounting of each component, since these benefits and costs would be incurred if either **component** were implemented by itself. In the combined accounting, they are only appropriately counted once.

Estimates of program benefits and costs can only be a reliable guide to policy to the extent that all major items are included in the benefit-cost accounting. For items that have an unambiguous dollar value (such as trainee earnings), this is straightforward. However, there are two types of items that are not directly measured in monetary terms, but which it is important, nonetheless, to include: items to which a dollar value **can** be imputed (such as the value of trainee services to clients) and items which are not susceptible to monetary measurement (such as effects on client health status and psychological well-being). Our approach is first to estimate net monetary benefits (directly measured plus imputed items). If **overall** net monetary benefits are negative--that is, if the monetary costs exceed the monetary benefits--we then discuss how valuable any nonmonetary benefits would have to be to make the program cost-effective.

### Client Component

For the client component of the demonstration the major expected benefits from the social perspective were reduced institutionalization, with commensurate reductions in Medicare and Medicaid reimbursements for hospitals, nursing homes, and other medical services. The major expected costs were the operational costs of the demonstrations. In addition, the demonstration could be expected to lead to reduced costs in nondemonstration home care programs and reduced burdens on informal caregivers through **displacement** of nondemonstration formal and informal care by demonstration services. Nonmonetary benefits were expected in the form of **improved** client functioning, health status, and well-being (in comparison to controls).

Table IV.1 shows the net benefits of the client component from the three perspectives of interest. As can be seen from the first column of the table, none of the demonstration projects produced positive net monetary benefits from the social perspective. The net **social** costs of the client component in monetary terms ranged from a low of \$2.87 per hour of demonstration service to a high of \$24.53. Against these costs must be weighed the positive effects on client health, physical functioning, and psychological well-being discussed in Chapter II.

TABLE IV.1. Net Benefits of Client Component  
(dollars per hour of service)

	Society	Clients and Informal Caregivers	Taxpayers
Arkansas	-24.53	<b>.56</b>	-25.09
Kentucky	-18.80	1.36	-20.16
New Jersey	<b>-9.76</b>	<b>.80</b>	-10.56
New York	-20.10	<b>.26</b>	-20.36
Ohio	-2.87	<b>.98</b>	-3.85
South Carolina	-4.28	<b>.73</b>	-5.01
Texas	-13.93	<b>.36</b>	-14.29

SOURCE: Orr, Benefits and Costs (1986), Table S.1.

Benefits not valued in monetary terms:

- Improved client health, physical functioning, and psychological well-being

The primary reason net social benefits were not positive was failure to achieve the expected reduction in use of hospitals and nursing homes. In this respect, the client component of the AFDC Homemaker-Home Health Aide Demonstration is similar to other random assignment evaluations of **community-** based care that have been undertaken in the last decade. There have been nine such evaluations, only one of which achieved positive net benefits.<sup>13</sup> This was the Wisconsin Community Care Options (**CCO**) program. **CCO** served mentally ill and nonelderly clients as well as the frail elderly and achieved its positive result through a reduction in hospitalization, not nursing home use. The only random assignment evaluation to achieve a reduction in nursing home use was the South Carolina Long Term Care Project. Its selection process included a mandatory preadmission screen, and even its reduction in institutionalization did not enable it to do more than break even. The other seven demonstrations had widely ranging net social costs for direct services.<sup>14</sup> The lowest was achieved by Worcester Home Care, \$54 per client per month. The highest was San Diego Long Term Care, at \$346 per client per month. The AFDC Homemaker-Home Health Aide Demonstration estimates--converted from per hour of service to per client per month--span the range of previous evaluations:

Arkansas	\$576
Kentucky	214
New Jersey	266
New York	474
Ohio	53
South Carolina	24
Texas	434

Only in South Carolina was the net social cost of the demonstration less than the lowest of the comparable previous demonstrations. In Texas, New York, and

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<sup>13</sup>These are the National Long Term Care Demonstration (Channeling), Worcester Home Care, NCHSR, Georgia AHC, Wisconsin CCO, Project OPEN, South Carolina LTC, Florida Pentastar, and San Diego LTC. For a detailed comparison of the evaluation results of these demonstrations, see' Robert Applebaum et al. The Evaluation of the National Long Term Care Demonstration: Tables Comparing Channeling to Other Community Care Demonstrations. Princeton, NJ: **Mathematica** Policy Research (1986)

<sup>14</sup>We exclude case management costs from this comparison, since the AFDC Homemaker-Home Health Aide Demonstration did not provide ongoing comprehensive case management.

Arkansas, net social costs were greater than the highest of the previous demonstrations.

Table IV.2 shows the major benefit and cost components for each State. Only in New Jersey and Ohio was there **appreciable reductions** in Medicare/Medicaid reimbursements for hospitals, nursing homes; and other medical services. In the other States there was essentially zero effect. In fact, the largest single social benefit in all States except New Jersey was simply reduction in the cost of nondemonstration services due to displacement. On the other side of the ledger, operational costs were typically high--substantially higher than the Medicare cost limits. If the operational costs had been kept to the Medicare cost limits, all the demonstrations would still have incurred net costs, but they would have been smaller (ranging from 41 cents per hour of service in Ohio to \$9.51 in Arkansas).

It should be noted that in return for these net costs, society reaped several nonmonetary benefits. For all the demonstrations taken together there were beneficial effects on physical and mental functioning, and self-reported health status. Demonstration clients also reported fewer medical conditions that were, in their own judgment, worse at reassessment (i.e., after receipt of demonstration services).

Who paid the cost of the client component? As can be seen from looking back at the third column of Table IV.1, the taxpayers. Taxpayers bore net costs in all seven demonstration States, ranging from a low of \$3.85 per hour of service in Ohio to a high of \$25.09 per hour of service in Arkansas. Clients benefited in monetary terms in every demonstration project, but not by very much--26 cents to \$1.36 per hour of service. The major components of this benefit were reduced client fees for nondemonstration services and the value of informal caregivers' time freed up by the aides' presence.

#### Trainee Component

For the trainee component of the demonstrations the major expected benefits from the social perspective were increased nondemonstration earnings of trainees and the value of the services the trainees provided for clients. The major expected costs were the operational costs of the demonstrations, work-related expenses of trainees (mainly child care), and the **leisure and**

Table IV.2: Social Benefits and Costs of the Client Component  
(dollars per hour of demonstration service)

	Arkansas	Kentucky	New Jersey	New York	Ohio	South Carolina	Texas
Reduced costs of nondemonstration formal home care	1.64	6.13	4.67	5.81	7.29	1.62	4.35
Reduced informal care <sup>a</sup>	.65	1.34	.65	-.33	.85	.79	.17
Reduced Medicare/Medicaid reimbursements for hospitals, nursing homes, and other medical services	.05	-.75	4.87	-.84 <sup>b</sup>	1.37	.02	-.97
Operational costs <sup>c</sup> (Medicare cost limit)	26.87 (11.85)	25.52 (13.48)	19.95 (14.67)	24.74 (8.28)	12.38 (9.92)	6.71 (8.80)	17.48 (12.92)

<sup>a</sup> Informal caregivers' time valued at \$3.35 per hour.

<sup>b</sup> Estimated reduction in Medicaid reimbursement not available because Medicaid data were not collected in New York.

<sup>c</sup> Net of evaluation costs.

SOURCE: Orr, Benefits and Costs (1986), Table 111.11.

Benefits not valued in monetary terms:

- Improved client health, physical functioning, and psychological well-being

home production foregone by the trainees in order to participate in the demonstration and work in unsubsidized jobs.

Table IV.3 shows the net benefits of the trainee component of the seven demonstration projects from the three perspectives of interest. As can be seen from the first column of the table, social benefits exceeded social costs for the trainee component in all States except New York--net social benefits ranged from \$2,226 per training entrant (i.e., per program slot) to \$12,961.

These estimates compare relatively favorably with the net social benefits estimated by random assignment evaluations of similar employment and training programs for AFDC recipients. So far there have been four such evaluations.<sup>15</sup> All achieved positive net social benefits, ranging from \$348 per trainee to \$8,150. The high end of the range was for Supported Work, which was the most similar to the AFDC Homemaker-Home Health Aide Demonstration in providing a subsidized work opportunity which lasted on average for most of a year. Three of the demonstration States exceeded even the Supported Work estimate: South Carolina (**\$9,483**), Ohio (**\$12,208**), and New Jersey (\$12,961).

The major benefit and cost components are shown in Table IV.4. In all the demonstration States except South Carolina, the largest social benefit was the increase in nondemonstration earnings of trainees, which ranged from \$2,181 in New York to \$18,962 in Ohio. (These estimates include the present discounted value of projected earnings gains beyond the evaluation followup period.) The value of services to clients was the major benefit in South Carolina; at \$12,643, it was the highest of any of the States. The largest costs in nearly all demonstration States were the operational costs (ranging from \$4,229 per training entrant in Ohio to \$8,688 in Kentucky).

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<sup>15</sup>Supported Work (see Peter Kemper et al. The Supported Work Demonstration: Final Benefit-Cost Analysis. New York: Manpower Demonstration Research Corporation, 1981); Baltimore, Maryland, Employment Initiatives (see Dan Friedlander, et al. Final Report. New York: Manpower Demonstration Research Corporation, December 1985); the San Diego Job Search and Work Experience Demonstration (see Barbara Goldman et al. Final Report. New York: Manpower Demonstration Research Corporation, February 1986); and the Arkansas Work Program (see Dan Friedlander et al. Final Report. New York: Manpower Demonstration Research Corporation, September 1985).

TABLE IV.3 Net Benefits of Trainee Component  
(dollars per training entrant)

	Society	Trainees	Taxpayers
Arkansas	2,226	-3,319	5,545
Kentucky	3,858	7,820	-3,962
New Jersey	12,961	16,670	-3,709
New York	-3,594	4,254	-7,848
Ohio	12,208	10,335	1,873
South Carolina	9,483	1,986	7,497
Texas	5,604	9,342	-3,738

SOURCE: Orr, Benefits and Costs (1986), Table S.2.

Table IV.4, Benefits and Costs of the Trainee Component  
(dollars per training entrant)

	Arkansas	Kentucky	New Jersey	New York	Ohio	South Carolina	Texas
<b>Benefits</b>							
Increased non-demonstration earnings	9,539	9,679	18,962	2,181	14,861	4,624	10,353
Value of service to clients <sup>a</sup>	4,771	7,550	9,393	1,114	8,515	12,643	8,383
<b>costs</b>							
Operational costs net of aides' wages	7,867	8,688	7,343	5,230	4,299	4,902	8,592
Work-related child care	1,067	1,122	1,872	487	1,505	412	1,145
Foregone leisure and home production <sup>c</sup>	3,150	3,561	6,179	1,172	5,364	2,470	3,395
<b>Transfers (from trainees' perspective):</b>							
Demonstration earnings	3,059	4,564	5,754	2,506	6,596	5,257	3,227
AFDC	-3,745	-1,759	-3,472	-322	-3,028	-2,932	-577
Food stamps	-1,645	-1,619	-3,093	1,691	-858 <sup>d</sup>	-1,717	-261
Medicaid	-6,014	218	237	(e)	-546	-529	1,031
Other	-96	409	147	-143	179	165	109
<b>Total</b>	<b>-8,641</b>	<b>2,824</b>	<b>5,759</b>	<b>3,732</b>	<b>2,343</b>	<b>244</b>	<b>3,529</b>

SOURCE: Orr, Benefits and Costs (1986), Table IV.11.

<sup>a</sup> Valued at Medicare cost limit.

<sup>b</sup> Net of evaluation costs.

<sup>c</sup> Trainee time valued at 25 percent of earnings.

<sup>d</sup> Based on two counties (Butler and Hamilton) for which computerized food stamp data are available.

<sup>e</sup> Medicaid data were not collected for New York.

Who reaped the benefits of the trainee component? The answer can be seen by looking back at the second and third columns of Table IV.3. In all but one of the States, the trainees received substantial net benefits (largely in the form of increased nondemonstration earnings), ranging from \$1,986 to \$16,670 per training entrant. In four of the seven States, these were received at a net cost to taxpayers--ranging from \$3,709 to \$7,848 per training entrant. In three States (Arkansas, Ohio, and South Carolina), taxpayers received net benefits from the trainee component of the demonstration. Only in Arkansas did taxpayer savings in benefits paid under AFDC, food stamps, Medicaid, and other public programs exceed the cost of aides' demonstration wages--as a result, trainees in that State suffered net costs from participating in the demonstration.

#### Client and Trainee Components Combined

Table IV.5 summarizes the net benefits of the demonstration as a whole. The trainee estimates have been incorporated into these overall estimates as dollars per hour of service for comparability. As can be seen in the first column of the table, only in New Jersey and Ohio were the net social benefits for the two components taken together **positive--\$15.75** and \$13.47 per hour of demonstration services, respectively. These were States that combined relatively low operational costs with large increases in trainee **nondemonstration** earnings. South Carolina essentially broke even. Operational costs in that State were the lowest of any of the States, but the **demonstration-**induced increases in trainee nondemonstration earnings were also lower than in other States. Arkansas, Kentucky, and Texas had negative net social benefits (i.e., social costs) of \$9.67, \$4.47, and \$3.68 per hour of demonstration service, respectively, reflecting relatively high **operational** costs. New York's net social costs were substantially the highest of all the States. This was a combination of training costs that were nearly five times as high per hour of service delivered as those of the next highest State, service provision costs that were also the highest of any State, and relatively modest increases in trainee nondemonstration earnings.

Who paid the costs and who reaped the benefits of the seven AFDC Homemaker-Home Health Aide Demonstration projects? The demonstration

TABLE IV.5 Net Benefits of Client and Trainee Components Combined  
(dollars per hour of service)

	Society	Taxpayers	Trainees	Clients
Arkansas	-9.67	<b>.73</b>	-10.96	<b>.56</b>
Kentucky	-4.47	-22.42	16.59	1.36
New Jersey	15.75	-15.77	30.72	<b>.80</b>
New York	-40.00	-77.28	37.02	<b>.26</b>
Ohio	13.47	-1.11	13.60	<b>.98</b>
South Carolina	<b>-.39</b>	-2.79	1.67	<b>.73</b>
Texas	-3.68	-22.89	18.85	<b>.36</b>

SOURCE: Orr, Benefits and Costs (1986), Table S.3.

Benefits not valued in monetary terms:

- Improved client health, physical functioning, and psychological well-being

cost taxpayers money in all States except Arkansas. These costs were modest in Ohio and South Carolina--less than \$3.00 per hour of demonstration service. They ranged from \$15.77 to \$22.89 per hour of service in Kentucky, New Jersey, and Texas. They were much the highest in New York--over \$77.00 per hour of service. Trainees benefited substantially **from** the demonstration in all States except, again, Arkansas. Client monetary benefits in all States were positive, though relatively small. These were attributable to reduced expenditures on nondemonstration in-home care and the value of reductions in informal care. To these, of course, must **be** added the benefits in improved client **health**, physical functioning, and psychological well-being.

As noted, the two demonstration projects which achieved positive overall net social benefits were New Jersey and Ohio. In New Jersey, the trainee net benefits were double the net social benefits, the difference being paid for by taxpayers. In Ohio, in contrast, the net social benefits went almost entirely to the trainees, but not at taxpayer expense. In Arkansas, unlike all the other demonstrations, the net social cost was borne entirely by trainees. In the other four demonstrations, the costs to the taxpayers were higher than the benefits to society--representing net transfers from taxpayers to trainees.

## V. SUMMARY AND INTERPRETATION

The AFDC Homemaker-Home Health Aide Demonstration **was** implemented simultaneously in seven States, subject to broad statutory and regulatory guidelines. The State demonstration projects were similar in their major features, although they differed in detail in numerous ways. More importantly, the environment of the demonstration varied markedly from State to State. The estimated effects of the seven individual State projects, therefore, provide some evidence of the range of outcomes that could be expected if the demonstration were implemented as a regular program.

The demonstration States were not chosen to be representative of the nation as a whole; nor can the outcomes in these States be generalized directly to other participant populations, program operating characteristics, or environments. Nevertheless, to the extent that the estimated effects of the demonstration were relatively consistent across these seven States, we can have some confidence that similar effects would be observed if a program operating under the same guidelines were adopted in another locale. To the extent the outcomes differ across the seven State projects, they provide a measure of the range of uncertainty about the results that could be expected.

In this chapter, we examine the overall patterns of the demonstration effects across the seven States, to see what overall conclusions and implications can be drawn. We first consider the estimated effects on clients, then the effects on trainees. We close with a **discussion** of the benefit-cost analyses of the client and trainee components, taken separately and together.

### Effects on Clients

The estimated effects of the client component were quite consistent **across** the seven demonstration States. In all States, the demonstration significantly increased the amount of formal in-home services received by clients, and in six of the seven the combined amount of formal **services and informal** care from nonhousehold sources was increased. In most States, there was little substitution of formal for informal care. Thus, it seems clear

that the demonstration treatment was implemented as intended, although the average increase in formal services -- 1 1/2 to 10 hours per week -- was not a particularly intensive treatment in most States.

The major expected effect of the client component was a reduction in time spent in hospitals and nursing homes. Here the evaluation results are also quite consistent: none of the demonstration projects achieved a significant reduction in hospital or nursing home utilization over the 1-year **followup** period as a whole, although one (New Jersey) produced a slight reduction in time spent in hospitals during the first 6 months after entry into the demonstration. The results are the same whether utilization is measured by proportion of clients admitted, fraction of the **followup** period institutionalized, or (for hospitals) average length of stay.

Consistent with the general lack of effects on institutionalization, there were virtually no significant effects on Medicare and Medicaid reimbursements for hospital and nursing home care. The only consistent effects on Medicare and Medicaid costs were savings in home health care reimbursements attributable to displacement of nondemonstration services.

The demonstration was not expected to prevent hospitalization, although it was anticipated that the availability of home care might shorten hospital stays by allowing clients to recuperate at home. It was expected to prevent or **delay nursing** home admissions, however. In fact, the scope for achieving large reductions in nursing home utilization among this population turned out to be quite limited, simply because few of the demonstration clients would have entered a nursing home in the absence of the demonstration. In no State did more than 16 percent of the client controls enter a nursing home; and in all States client controls spent on average **5** percent or less of the **followup** period in **nursing** homes.

The failure of the demonstration to effectively target services on clients who would otherwise have been admitted to nursing homes is probably due to at least two factors. First, it is now generally recognized as extremely difficult to predict institutionalization on the basis of observable client characteristics. Even among the six **high-risk** subgroups analyzed in this evaluation, two-thirds or more of the client controls were not admitted to nursing homes during the **followup** period. Nursing home admissions are the

result of an **interaction** of social, economic, and **institutional** factors that may be too complex to allow systematic prediction.

Most other recent evaluations of community-based care demonstrations have had no greater targeting success than the AFDC Homemaker-Home Health Aide Demonstration. The very few that have identified a high-risk group (as measured by institutionalization-rates of the nonservice group) have either not used a random assignment methodology or have implemented an intervention with unusual characteristics. Other HCFA-sponsored studies currently underway are focusing specifically on the targeting issue in an effort to increase our insight into the factors that can predict high risk. If such factors can be identified--and if they are susceptible to measurement at program entry--the potential of community-based care alternatives to reduce long term care costs may be substantially enhanced.

A second reason for the failure of the demonstration to target services on clients at imminent risk of institutionalization may be that the local intake staff who actually selected the demonstration clients may not have shared this objective. The stated objective of the demonstration at the Federal and State level notwithstanding, local staff may well have viewed the demonstration services as a way to improve the quality of life of the clients, rather than as a means of preventing institutionalization. In fact, in most States only a minor fraction of client applicants were deemed ineligible on the basis of the **inperson** assessments.

Even if better targeting were possible, it is not clear that the major objective of the demonstration could be achieved. Examination of demonstration effects on the six high risk client subgroups analyzed in this evaluation revealed a virtually uniform lack of significant effects even within these more limited populations. It is, of course, possible that more intensive services than those provided in the demonstration, or a different allocation of services among clients, would be more effective in preventing institutionalization. This evaluation cannot address the latter possibility; it can only measure the effects of the allocation of services actually implemented in the demonstration. With regard to intensity of service, it should be noted that there was no systematic demonstration effect in any of the seven demonstration States, even though intensity of service varied more than fivefold across the States.

The findings with regard to client health and functioning are more positive. Across the six States in which client reassessments were conducted, the demonstration had significant beneficial effects on a number of measures and no adverse effects. Relative to client controls, demonstration service clients were less dependent in both Activities of Daily Living and Instrumental Activities of Daily Living; were better oriented mentally; and rated their own health better at reassessment. Moreover, the speech and communication abilities of service clients deteriorated less than those of their control counterparts over the period from initial assessment to reassessment (on average, about 20 months), and fewer service clients reported that their specific medical conditions had gotten worse in the 12 months prior to reassessment. There were no significant effects on the more purely physiological measures of vision, hearing, and judgment; incidence of specific medical conditions; or restriction of activities.

All the beneficial effects on client health and functioning were relatively modest. They were, however, more pervasive and consistent than those found in earlier community care demonstrations. These findings suggest that, even though the demonstration did little to prevent institutionalization, it did improve the quality of life for the elderly and functionally impaired residing in the community.

#### Effects on Trainees

Demonstration effects on trainees were much more positive, although somewhat more variable across States, than those on clients. Six of the seven States succeeded in achieving the major objective of the trainee component--increasing the earnings of trainees in unsubsidized employment--in at least 1 of the first 2 years after the typical trainee left the demonstration. Moreover, these effects were relatively large--on the order of \$100-\$200 per month in five States. These unsubsidized earnings gains reflect significant increases in employment rates and hours of work, relative to the control group, as well as significantly higher hourly wage rates in five States. The latter finding is particularly important, because wage rate gains are evidence of increased productivity.

It is also noteworthy that gains in unsubsidized employment and earnings were consistently larger and more prevalent in the second than in the

first postdemonstration year. In part, this reflects the fact that some trainees were still in subsidized employment, rather than unsubsidized jobs, during the first year after the typical trainee left the demonstration. But it is evidence that the employment gains following demonstration participation were not short lived and, in fact, were likely to extend beyond the evaluation **followup period.**<sup>16</sup>

Effects on trainee welfare dependence were consistent with those on employment and earnings. All seven demonstration projects significantly reduced the proportion of trainees receiving AFDC in a typical month during the **followup** period, relative to the receipt rate of controls, and five significantly reduced dependence on food stamps.

In the first year after the typical trainee had left the demonstration, average combined AFDC and food stamp benefits were significantly reduced in six of the seven States, by amounts ranging from \$50 to \$130 per month. In four States, benefit reductions of \$37 to \$86 per month persisted into the second postdemonstration year.

The effects on welfare dependence, while substantial and consistent across States, were thus shorter lived than those on nondemonstration earnings. This is to be expected. In all States, controls were gradually leaving the welfare rolls over the course of the **followup** period, reflecting normal caseload turnover. Trainees could maintain their earnings advantage long after both they and their control counterparts had left welfare; as controls left the welfare rolls, however, the potential for welfare benefit savings was progressively reduced.

There were no significant reductions in average Medicaid benefits over the **followup** period as a whole, even though Medicaid eligibility is closely tied to AFDC status, and AFDC benefit receipt was substantially reduced in all States. This is largely because the Medicaid eligibility of demonstration trainees was automatically extended for a period of up to 12 months. In four of the six States in which Medicaid data were collected, Medicaid benefits were in fact reduced in the period after most trainees had

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<sup>16</sup>In the benefit-cost analysis, we projected future trainee earnings gains on the basis of the level and trend of earnings gains observed during the **followup** period.

left the demonstration; but these reductions were not sufficient to offset the increases in Medicaid cost while the trainees were participating in the demonstration. Given the large effects on AFDC receipt, it seems likely that overall Medicaid savings would have been much greater if trainees' eligibility had not been extended. It should be recognized, however, that the effects on employment and welfare benefits might have been smaller without the Medicaid eligibility extension, which weakens the disincentive to leave welfare posed by the loss of Medicaid coverage.

Taken together, the evaluation results for the trainee component are quite positive. They compare favorably with the findings of even the most successful prior evaluations of employment and training interventions for the AFDC population. It seems clear that training as homemaker-home health aides is an effective way to move AFDC recipients off the welfare rolls and into unsubsidized employment. Moreover, the gains in earnings and self-sufficiency resulting from such training appear to be relatively long lived and reflect improvements in productivity, as well as simply increased hours of work. Nor were the employment gains of the trainees restricted to work as homemaker-home health aides--a relatively low-paid occupation in the private sector. A large fraction of trainees found unsubsidized employment in non-health-related jobs. Apparently, the demonstration had a more general effect of increasing the trainees' ability to obtain more and better employment in jobs other than those for which they were specifically trained. In interpreting these results, it must be borne in mind that all of the demonstration trainees were volunteers and, therefore, presumably more highly motivated than the average AFDC recipient.

A final important question addressed by the evaluation of the trainee component is whether a different method of selecting among demonstration applicants could have yielded even more positive results. At intake, demonstration staff selected among applicants on the basis of a large number of personal characteristics. Some of these were measured by the evaluation; intake workers' assessment of both measured and unmeasured trainee characteristics are summarized by their ratings of applicants' potential as homemaker-home health aides. Intake workers **appear** to have been successful in identifying those applicants who would do best, in terms of future earnings and welfare dependence, with or without training. They were not able to

identify those applicants who would benefit the most from training and subsidized employment. In fact, with the exception of prior education (which had a consistently positive influence), neither objective measured characteristics nor the more subjective attributes captured by the potential ratings provide much useful information for predicting the effects of the demonstration on specific trainees. Thus, even with the benefit of hindsight, it appears that there is little scope for enhancing program effects by targeting services on specific types of trainees.

### Benefits and Costs

The overall benefits and costs of the demonstrations show that in only two of the States were the demonstrations, as implemented, **cost-effective**. Even in those States, the client component did not break even; the overall positive results were because the positive net benefits from the trainee side of the demonstrations more than compensated for the net costs of the client side.

The client component taken by itself was not cost-effective in any State. In large part, this was because the major expected benefits of the client component--reductions in costs of institutionalization--did not materialize in most States. Only in Ohio and New Jersey were there any appreciable reductions in Medicare and Medicaid reimbursements for services other than home care--and in those States, the savings were primarily in hospital, not nursing home, reimbursements. In the remaining States, Medicare and Medicaid savings offset less than 10 percent of the operational costs of the demonstrations. The largest single measured social **benefit** of the client component in all States except New Jersey was simply the displacement of nondemonstration home care services.

The general failure of the demonstrations to achieve substantial savings in the costs of institutionalization reflects, as noted, a failure to select demonstration clients who were in fact at risk of institutionalization. In no State did more than 16 percent of the control clients enter a nursing home during the 1-year **followup** period. Thus, there was little scope for achieving major savings in nursing home costs, even if the demonstrations had been more successful in preventing or delaying admissions among those who would have entered nursing homes.

A striking finding of the benefit-cost analysis is that the costs of the client component (net of evaluation costs) were higher than the home care costs normally incurred by the government in **all** States except South Carolina--and in most States substantially so. In part, this may have been due to administrative costs associated with the demonstration setting or to the absence of the strict cost controls imposed in regular programs. It also seems likely that the requirement that demonstration aides serve primarily demonstration clients reduced the efficiency with which aides were utilized, thereby raising the cost per hour of service. Even if the operational costs of service provision had been within the Medicare cost limits for in-home care, however, the client component would not have been cost-effective in any of the seven States.

The clear implication of this analysis, then, is that if provision of home care services to this client population at public expense is to be justified, it must be on the basis of improving the quality of life for the frail elderly and otherwise impaired individuals and their caretakers, not as a way of reducing nursing home costs.

The results for the trainee component, taken by itself, are much more positive. **All** seven States achieved substantial increases in trainees' nondemonstration earnings and at least modest reductions in **AFDC** benefits. Six of the seven **demonstrations** produced positive net social benefits that compare favorably with those found in evaluations of the most successful earlier demonstrations of employment and training interventions for the **AFDC** population. Moreover, as noted, if the trainee component were implemented by itself without the requirement that the aides serve a specific limited client group, the utilization of aides' time might have been more efficient. This would have increased the value of the aides' services and, therefore, net social benefits, in most States'.

While the trainee component yielded positive net benefits from a social perspective in six of the seven States, net benefits from the narrower perspective of taxpayers were positive in only three. **In the** remaining four States, the expected savings in total **AFDC, food stamp, Medicaid, and other** public benefits either failed to materialize or were insufficient to **offset** the excess of operational costs over the value of services provided. Differences among States in public benefit savings may have resulted from any

of a number of differences in the environmental context--e.g., employment opportunities or State program characteristics--as well as differences in the way the demonstration was operated or its participants selected. It is therefore not possible to identify the specific factors that led to taxpayer savings in some states but not in others.

In three of the four States in which there were net costs to taxpayers (Kentucky, New Jersey, and Texas), the policy question that must be addressed is whether taxpayers are willing to bear some costs in order to generate net benefits to trainees that are two to four times as large as taxpayer costs. In New York, net benefits to trainees were only about half as large as taxpayer costs. In Arkansas, where net social benefits were positive, the distributional issue is somewhat different--there, taxpayers enjoyed positive net benefits while trainees bore net costs.

When the two components are taken together, as noted, net social benefits were positive only in New Jersey and Ohio. Had demonstration services been provided at costs within the Medicare cost limits, net social benefits would have been positive or essentially zero in all seven States. Even in that hypothetical case, however, the positive value of the combined components would, in most States, reflect the positive benefits of the trainee component compensating for the social costs of the client component.

As implemented, the demonstration as a whole resulted in net savings to taxpayers only in Arkansas. In four States, they cost taxpayers more than they benefited participants in monetary terms. Against these added taxpayer costs must be weighed the intangible benefits of the demonstrations to clients and trainees and any satisfaction derived by taxpayers in knowing that aged and impaired clients were being care for, and that former welfare recipients were and are working.

These distributional effects are important in assessing the policy implications of the demonstrations. However, the social value of the demonstration program, and of its two separate components; should be judged on the basis of net social benefits, not simply on the basis of monetary savings to taxpayers. On that basis, the major finding&of the benefit-cost analysis of the AFDC Homemaker-Home Health Aide Demonstration are that:

- Social costs of the client component exceeded social benefits in all seven States;

- Net social benefits of the trainee component were positive and substantial in all States except New York; and,
- Taking the two components together, the overall net social benefits of the demonstrations were positive in two States, New Jersey and Ohio, but were less than those of the trainee component alone.

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