

Costs and Benefits of a Wage Increase for Home Help Workers

Commissioned by:
Michigan Quality Home Care Campaign

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I. Executive Summary

PURPOSE OF REPORT

The purpose of this report is to analyze the costs and benefits of the State of Michigan increasing the wages of Home Help workers. Home Help is one of several programs the State of Michigan provides for low-income individuals who need long-term care but do not want to move out of their homes. We analyze the effect of higher wages by focusing on two types of benefits and costs: public and private.

BENEFITS AND COSTS DEFINED

Public Costs and Benefits. We define public costs and benefits as those directly related to the federal government and the State of Michigan. Since the government pays for Home Help beneficiaries to receive care, it will face an immediate cost of paying for higher wages. The state experiences fiscal benefits if, by targeting funds to different programs, it spends less on more expensive programs than it would have without the policy change. We analyze the fiscal costs and benefits to the State of Michigan in “Fiscal Impact: Methodology and Findings” on page 18.

Private Costs and Benefits. “Private” benefits and costs are those experienced by the beneficiaries of the Home Help program, as opposed to those related to the government. We discuss the private impact of a wage increase in “Private Benefits and Costs: Methodology and Findings” on page 22.

OVERVIEW OF MEDICAID LONG-TERM CARE OPTIONS

In 2005, the State of Michigan spent \$1.8 billion on Medicaid Long-Term Care (LTC). Medicaid is the state managed health insurance program for individuals and families with low income and resources. The State of Michigan receives federal funds that pay for 56.7% of the cost of its Medicaid programs. The State of Michigan spends a majority of its Medicaid Long-Term Care budget on two programs: Nursing Facilities and Home Help.

Home Help Program. The Michigan Home Help program provides eligible persons in-home assistance with Activities of Daily Living (ADLs). To be eligible for this program, individuals must be financially eligible for Medicaid, and need help with one or more ADL. The State of Michigan’s *Adult Services Manual* requires a Functional Assessment as part of determining a beneficiary’s eligibility.¹ The Functional Assessment covers an individual’s ability to perform Activities of Daily Living (eating, toileting, bathing, grooming, dressing, transferring, and mobility), and Instrumental Activities of Daily Living (taking medication, meal preparation and cleanup, shopping, laundry, and light housework).

1. “Independent Living Services Program Procedures,” *Adult Services Manual*, Michigan Department of Human Services, Revision ASB 2004-006, 10-1-2004.

Home Help beneficiaries direct their own care, often selecting their own care-givers. Over half of Home Help workers are related to the beneficiary.² A doctor certifies the medical need and the Michigan Department of Human Services (DHS) sets up the contract so that the necessary care will be provided and the Home Help worker will be paid by the state. DHS sends a dual-party check to the Home Help beneficiary that includes the worker and the beneficiary's name. Both parties' signatures are required for the Home Help worker to receive payment.

Nursing Facility Program. The state pays for most nursing facility care provided in Michigan. In 2005, an average of 30,538 Michigan residents received Medicaid-funded nursing facility care each month.³ The number of unique Medicaid nursing facility patients in a given year is closer to 45,000. In 2003 there were 431 licensed nursing facilities in Michigan, with an average occupancy rate 85%.⁴

Patients must meet specific criteria to qualify for Medicaid-funded nursing care, including assessments of how much assistance the patient needs with Activities of Daily Living, the patient's level of cognitive impairment, how much physician care the patient needs, what medical conditions the patient has, whether the patient needs rehabilitative therapy, whether the patient exhibits any "challenging behaviors" (including wandering, hallucinating, resisting care, and being abusive), and the patient's current or prior participation in other Medicaid LTC Programs.

The State of Michigan pays nursing facilities a fixed reimbursement rate for each Medicaid recipient in nursing facility care. This reimbursement rate varies by facility and is based on the facility's cost report filed for the previous calendar year. Currently, the reimbursement rate for nursing facilities is based on cost reports filed with the state for calendar year 2004.⁵

Other Home and Community-Based Options. The Michigan Department of Community Health oversees other programs that offer long-term care services to eligible persons who wish to remain living in their homes. These programs

2. According to a survey conducted by the Michigan Family Independence Agency in September 2000, 44% of recipients have a care giver who is a relative. A survey conducted by the Feldman Group in December 2005 of Home Help workers found that 80% of the workers are related to their clients.

3. Data provided by the Michigan Department of Community Health.

4. AARP, "Across the States, Profiles of Long-Term Care: Michigan," 2004.

5. The per diem rates vary by facility. In a report the Michigan Department of Community Health delivered to the Michigan Medicaid Long Term Care task force in October of 2004, the agency stated that a private facility can expect to receive a per diem of \$154 while a county facility may receive around \$180 in fiscal year 2005.

include MI Choice, a program that provides personal care, nursing, and household care; and the Medicaid Program of All-Inclusive Care for the Elderly (PACE), a program that provides long-term care services to program enrollees who are 55 years of age or older.

OVERVIEW OF METHODOLOGY

The specific policy change that this report analyzes is the State of Michigan spending an additional \$30 million to increase wages for Home Help workers in FY 2007. This policy change assumes that all additional state expenditures on Home Help go towards providing services. We hypothesize that a higher wage for Home Help workers will improve the quality of home care provided. It is this change, improvement in home care, that will attract LTC patients to the Home Help program, thus reducing the demand for more expensive LTC programs.

We completed our analysis of the costs and benefits of increased wages for Home Help workers in two parts:

1. Analysis of the net fiscal impact of increased wages on the State of Michigan.
2. Analysis of the private benefits and costs to increasing access and improving home care in Michigan.

Fiscal Impact Analysis. We analyzed the fiscal impact of increased wages for Home Help workers on the State of Michigan's annual Long-Term Care expenditures. The net fiscal impact is the difference between the total cost of Home Help and Nursing Facilities, at current and increased funding levels.

To calculate the net fiscal impact of a wage increase for Home Help workers, we first projected the population in need of Medicaid Long-Term Care in Michigan. Next, we created a model of the likely new entrants into the Home Help program and estimated the number of beneficiaries in Home Help and Nursing Facilities for FY 2007 to FY 2012. We then modeled the new program costs associated with increased wages and new Home Help clients under current and increased funding levels. Finally, we projected the total annual expenditures on Home Help and nursing facilities under current and increased funding levels, that is without and with the policy change. See "Fiscal Impact: Methodology and Findings" on page 18.

Private Benefits and Costs Analysis. We began our analysis of the private costs and benefits of the Home Help policy change by examining the costs associated with home-owning Medicaid beneficiaries leaving their home unoccupied when they move into a nursing facility. First, an unoccupied home produces income that simply vanishes when no one is there to collect it. Beneficiaries lose the rent income they had been collecting from their home, which is the amount they would have to pay to rent a similar home. Second, many homeowners moving into a nursing facility will be unable to keep up with the mainte-

nance of their home. They—and their neighbors—lose wealth as their house and property deteriorates.

To calculate the foregone rent income associated with each unoccupied home, we first used county-level data on the value of owner-occupied housing to calculate the annual lost earnings for Home Help beneficiaries in each county in Michigan. We then used data on the distribution of Home Help beneficiaries across Michigan counties to calculate the weighted average of annual rent earnings per homeowner for the entire Home Help beneficiary population in the state. See “Private Benefits and Costs: Methodology and Findings” on page 22.

To calculate the value each unoccupied home will lose due to inadequate maintenance, we started with survey data from the 2004 Consumer Expenditure Survey (conducted by the federal Bureau of Labor Statistics) on what the average homeowner spent in 2004 on “Maintenance, repairs, insurance, other expenses,” and adjusted these values to reflect the distributions of age, income, race and ethnicity, in the Home Help population. See “Private Benefits and Costs: Methodology and Findings” on page 22.

SUMMARY OF FINDINGS

1. Michigan Home Help is Less Expensive than Nursing Facility Care

While the state spent more on Home Help in 2005 than it did in 2001, the average amount the state spent per beneficiary was lower in 2005. In 2005, the average cost per beneficiary was \$4,496; in 2001, the average cost per beneficiary was \$5,120. Several policy changes can explain this lower cost. First, the number of reviews by a caseworker fell from four times a year to two. Second, the state capped the number of hours a worker can spend assisting with Instrumental Activities of Daily Living. Finally, the state froze wages for Home Help workers in 2003.

The average cost per nursing facility client, however, has risen since 2001. The average cost per beneficiary increased from \$35,554 in 2001 to \$47,616 in 2005. The difference in the average cost per beneficiary in each type of care setting is summarized in Table 1. The gap in the average cost of Home Help and nursing facility care has widened since 2001.

TABLE 1. Cost Comparison of Home Help and Nursing Facilities, 2001-2005

	2001	2002	2003	2004	2005
<i>Nursing Facilities</i>					
Number of Beneficiaries ^a	30,463	30,286	30,272	30,499	30,538
Total Expenditures	\$1,083,093,568	\$1,129,504,598	\$1,219,462,855	\$1,444,318,508	\$1,454,107,521
Average Cost Per Beneficiary	<u>\$35,554</u>	<u>\$37,295</u>	<u>\$40,284</u>	<u>\$47,356</u>	<u>\$47,616</u>
<i>Home Help</i>					
Number of Beneficiaries ^b	39,102	41,904	44,424	45,570	45,166
Total Expenditures	\$200,198,224	\$217,007,858	\$209,882,804	\$215,916,748	\$203,049,759
Average Cost Per Beneficiary	<u>\$5,120</u>	<u>\$5,179</u>	<u>\$4,725</u>	<u>\$4,738</u>	<u>\$4,496</u>
Difference in Average Cost	\$30,434	\$32,116	\$35,559	\$42,618	\$43,121

*Data Source: Michigan Department of Community Health
Analysis: Anderson Economic Group, LLC*

- a. "Number of Beneficiaries" reflects the average number of unique Medicaid nursing facility residents per month. According to DCH, over the course of a year, the number of unique Medicaid nursing home clients is closer to 45,000.
- b. "Number of Beneficiaries" reflects the average number of unique Home Help clients per month. According to DCH, about 55,000 unique individuals are served by the Home Help program in a given year.

2. Michigan Saves Money by Diverting Medicaid Beneficiaries Away from Nursing Facilities and into Home Help

We hypothesize that a wage increase for Home Help workers will change the quality of care provided. Economic reasoning suggests that higher wages will attract better workers and improve the quality of care. Additionally, some people may qualify for Home Help, but are unable to find a home care provider. A higher wage may attract new Home Help workers, increasing the number of new Home Help clients as these people are able to find suitable care givers.

While the populations in nursing facilities and Home Help are very different, there is a percentage of nursing facility patients that could be served by home care programs. By diverting new LTC patients away from nursing facilities and into Home Help the state can save millions in program expenditures.

Cost Savings for State and Federal Governments. For the first year that wages are increased for Home Help workers, fiscal year 2007, we estimate that the federal government and the State of Michigan will spend \$25 million less on Long-Term Care in Michigan. This is comprised of \$21 million more on Home Help than it would have without the wage increase, but \$46 million less on nursing facility care for a total cost savings of \$25 million.

Executive Summary

We estimate that the cost savings to Michigan’s General Fund, the account used to pay the state’s share of Medicaid program costs, will be \$5.9 million in fiscal year 2007. For information on the cost savings to the State of Michigan, please see “Fiscal Impact: Methodology and Findings” on page 18.

As more people in the future chose home care over nursing facilities, the annual cost savings for the state will grow larger. We estimate that by fiscal year 2012 the total cost savings will be \$70.5 million, with savings to Michigan’s General Fund totaling over \$16.3 million. See Table 2 below.

TABLE 2. Net Fiscal Impact of a Wage Increase for Home Help Workers, FY 2007-FY 2012

	Baseline 2005	Policy Change 2007	2008	2009	2010	2011	2012
<i>Without a Wage Increase</i>							
Total Home Help Cost	\$203.0	\$214.3	\$220.2	\$226.2	\$232.4	\$238.8	\$245.3
Total Nursing Facility Cost	<u>\$1,454.1</u>	<u>\$1,648.3</u>	<u>\$1,750.0</u>	<u>\$1,857.9</u>	<u>\$1,972.5</u>	<u>\$2,094.1</u>	<u>\$2,223.2</u>
Total Annual Program Cost	\$1,657.2	\$1,862.7	\$1,970.2	\$2,084.1	\$2,204.9	\$2,332.9	\$2,468.5
<i>With a Wage Increase</i>							
Total Home Help Cost	\$203.0	\$235.6	\$247.8	\$261.6	\$276.2	\$290.3	\$306.3
Total Nursing Facility Cost	<u>\$1,454.1</u>	<u>\$1,601</u>	<u>\$1,689.9</u>	<u>\$1,782.6</u>	<u>\$1,880.3</u>	<u>\$1,983.2</u>	<u>\$2,091.7</u>
Total Annual Program Cost	\$1,657.2	\$1,837.4	\$1,937.6	\$2,044.2	\$2,156.5	\$2,273.5	\$2,398.0
Net Fiscal Impact (Cost Savings)	-	\$25.2	\$32.6	\$39.9	\$48.4	\$59.4	\$70.5
<i>memo:</i>							
<i>Cost Savings for the State of Michigan^a</i>	-	\$5.9	\$7.6	\$9.1	\$11.0	\$13.7	\$16.3

Source: Anderson Economic Group, LLC

a. The cost savings presented here are for the State of Michigan’s General Fund. This assumes that 25% of the total expenditures on nursing facilities comes from a nursing facility provider tax. This percentage is subtracted out from our cost savings to the General Fund.

3. The Private Benefits to Improved Home Care are Large

Quality of Life Improvements. New Home Help enrollees who would otherwise be in a nursing facility experience a tremendous improvement in their quality of life. Simply being able to live in their own home allows a sense of dignity and independence not available in even the best nursing facilities. The Home Help program allows most of its beneficiaries this freedom. In a survey conducted by the Michigan Family Independence Agency in 2000, over 70% of beneficiaries said they lived in their own home.

For new Home Help enrollees who would otherwise receive no formal long-term care, the program allows an existing caregiver to be paid for his or her

work. The result may be a direct improvement in the Home Help beneficiary's quality of life as more care is given. In addition to these direct benefits, the pay provided by Home Help enrollment will allow beneficiaries to feel less like a burden on the (previously unpaid) friends or relatives who care for them.

Benefits to Remaining in Own Home. Increased availability of Home Help providers will allow some beneficiaries to remain in their own home rather than move into a nursing facility. We estimate that these people avoid an annual \$498 loss in property value due to inadequate maintenance and repairs on their home, costing both the beneficiary and his or her former neighbors. We further estimate that, by remaining in their home, they avoid \$4,302 in lost rent income (i.e. the annual amount they would have to pay to rent a similar home). This is capital income that simply vanishes from society when no one is there to collect it.

LIMITATIONS OF OUR ANALYSIS

In this report, we assume certain behavioral changes will accompany a policy change of higher wages for Home Help workers. We can not be certain how many Michigan residents will join the Home Help Program in the future or how many would have gone into nursing facility care if the Home Help Program did not exist. In addition, the State of Michigan is spending money to encourage the use of home care options, Home Help being one, which may have the affect of diverting people away from nursing facilities independent of any increase in the wages of Home Help workers. In this report we do not analyze the impact of these independent policies on the cost of long-term care, and it may be difficult in the future to tease out the effect of one policy change versus another.

As we completed our fiscal impact analysis, we were careful to use conservative estimates of the number of new LTC beneficiaries who will be diverted away from nursing facilities and into Home Help. In the first year of higher wages for Home Help workers, we assume a group equivalent to 3% of the expected Medicaid nursing facility population enrolls the Home Help Program rather than entering a nursing facility. By 2012, we have increased this percentage to a group equivalent to 7% of the expected Medicaid nursing facility population. Based on our analysis of Medicaid nursing facility patients, we believe that in 2003 at least 10% of this population could have been served by Home Help. Thus, we believe our analysis includes reliable, conservative estimates of the number of people who could be served by the Home Help Program rather than nursing facility care.

II. Overview of Medicaid Long-Term Care Options

MEDICAID FUNDED LONG-TERM CARE

The Michigan Department of Community Health (MDCH) oversees Michigan's Medicaid Long-Term Care and Home and Community-Based Services (HCBS) programs. Medicaid is the state-managed health insurance program for individuals and families with low income and resources, and for those who become poor paying for care. Medicaid is the single largest source of funding for long-term care.

Long-term care refers to the services that people need when their ability to care for themselves has been reduced by an illness or disability. The level of care people need may vary considerably. Michigan's Medicaid Long-Term Care Programs pay for care in nursing homes and for personal care and household services for beneficiaries who live in their own homes.

Medicaid Long-Term Care Population. In 2005, 12.4% of Michigan's 9.8 million population were 65 years and older. By 2015, the U.S. Census projects that 14.3% of Michigan's population will be in this age cohort. Currently, about 7.5% of this age cohort are Medicaid Long-Term Care beneficiaries. Michigan had 90,332 LTC clients in 2005. This number is expected to grow to over 107,000 by 2015. See "Medicaid Long-Term Care Population Projection" on page 3 of Appendix A.

MICHIGAN HOME HELP PROGRAM

The Michigan Department of Human Services (DHS) administers the Home Help Program on a local (county) level. The person or family member interested in home care services first applies for Home Help Services at his or her local DHS office. To be eligible for the Home Help program, the individual must be financially eligible for Medicaid and need help with one or more Activities of Daily Living (ADL).

After the person has applied for Home Help Services, an Adult Services case-worker conducts a Functional Assessment to determine the number of hours of care the person is eligible to receive. The Functional Assessment covers an individual's ability to perform ADLs (eating, toileting, bathing, grooming, dressing, transferring, and mobility), and Instrumental Activities of Daily Living (IADL), which include taking medication, meal preparation and cleanup, shopping, laundry, and light housework.⁶

6. ADLs and IADLs are defined in the State of Michigan's *Adult Services Manual*, in the "Independent Living Services Program Procedures."

A doctor certifies the medical need and DHS sets up the contract so that the necessary care will be provided and the Home Help worker will be paid by the state. DHS sends a dual-party check to the Home Help beneficiary that includes the worker and the beneficiary's name. Both parties' signatures are required for the Home Help worker to receive payment.

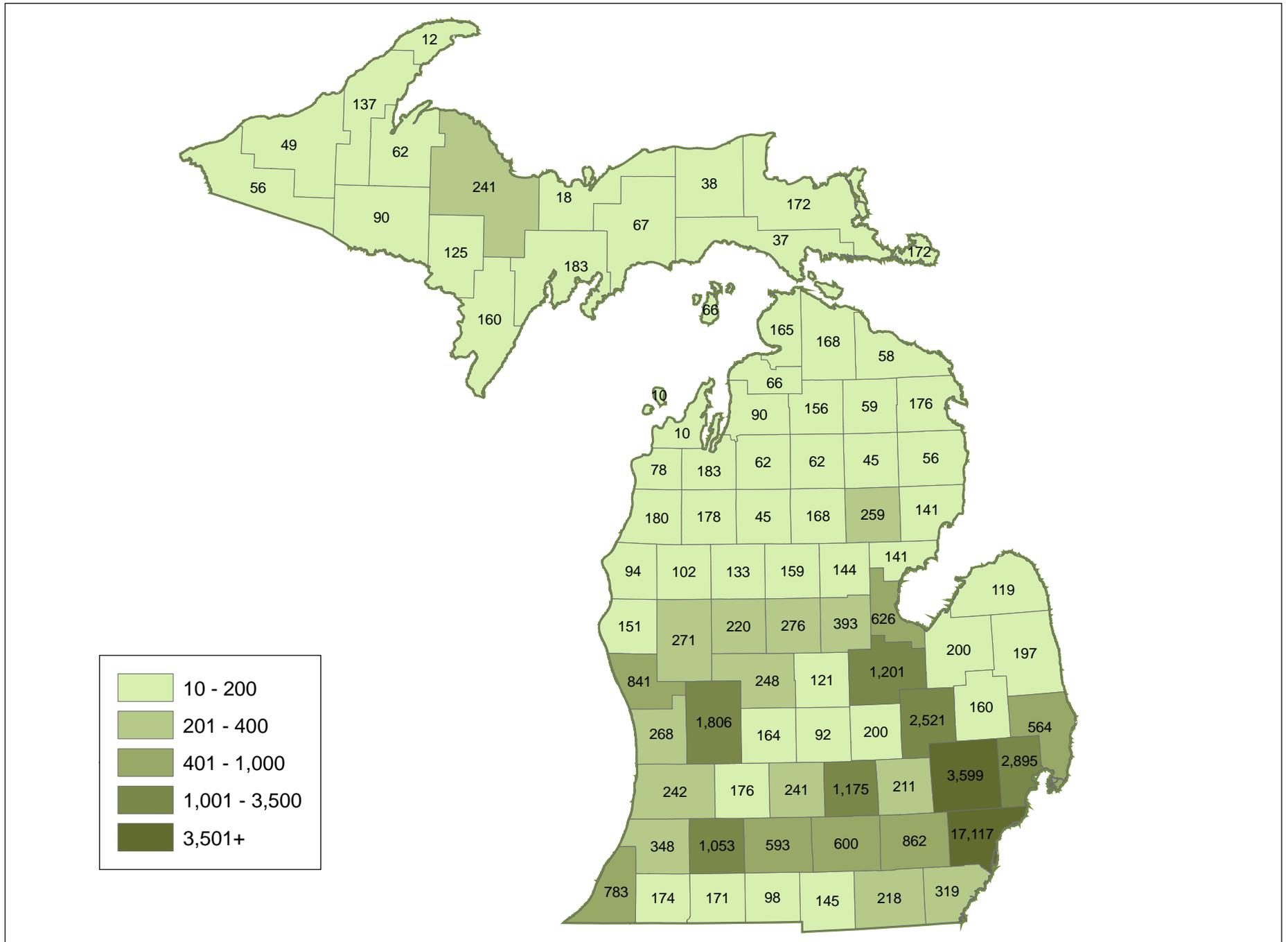
Home Help Beneficiaries. In 2005, an average of 45,000 unique individuals were enrolled in the Home Help program each month. During the course of a year, the Home Help program serves closer to 55,000 unique individuals. The number of clients has grown steadily from its 2001 average number per month of 39,102 persons. As Map 1 on page 10 illustrates, Home Help beneficiaries are spread throughout Michigan. The largest number of Home Help clients are in Wayne County.

In September 2005, about two-thirds of Home Help beneficiaries were female. A little over half (53%) were white, while 44% were African-American. Sixty percent of beneficiaries were 60 years old or younger. See Figure 1 on page 11.

Over 85% of Home Help clients direct their own care. According to a survey conducted by the Michigan Family Independence Agency (now the Department of Human Services) in September 2000, 98% of Home Help recipients surveyed said they receive assistance with shopping, laundry, and housework. Over 70% said they receive help with meal preparation. Other frequent services include assistance with personal care (60%) and medication (52%).

The same survey found that most (66%) Home Help clients see their care provider daily or two to six times per week. Sixteen percent of Home Help clients said they would be in a nursing facility if they did not receive Home Help services.

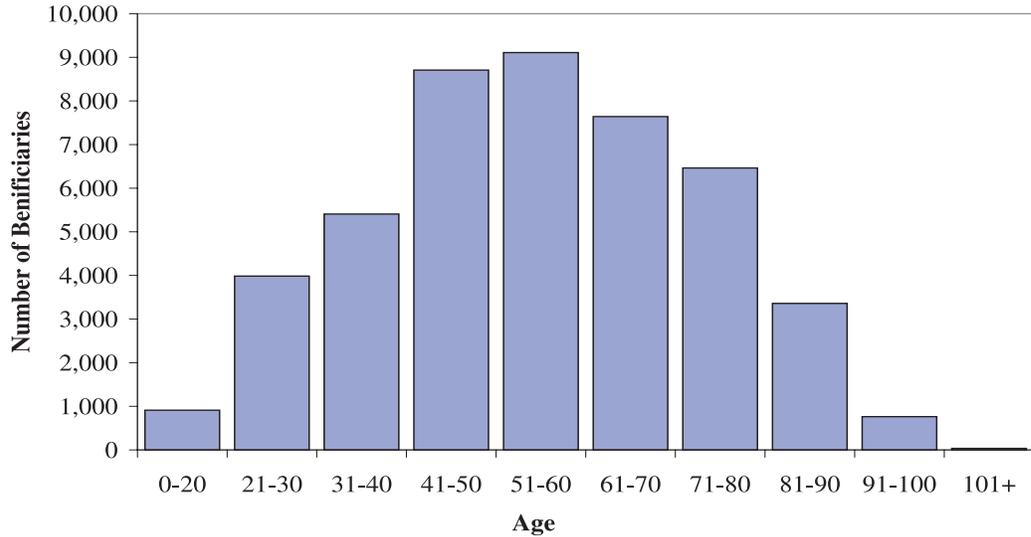
Map 1. Number of Home Help Beneficiaries, October 2005



Data Source: ESRI
 Created by: Anderson Economic Group, LLC
 Date: June 2006



FIGURE 1. Number of Home Help Beneficiaries by Age, September 2005



Home Help Workers. There are almost as many Home Help care providers as there are clients. In 2001, Michigan had 34,801 Home Help workers. By 2005, the number of workers had grown to 40,297.⁷ Over 80% of Home Help workers have one client. Most Home Help workers became a home care worker because a family member or close friend was in need of care. In a survey conducted in 2005, 75% stated that this was their reason for becoming a home care provider.

According to the same survey of Home Help workers, 74% are over the age of 40 years, and 22% percent are over the age of 64 years. Most (64%) have either some high school education or a high school degree.⁸

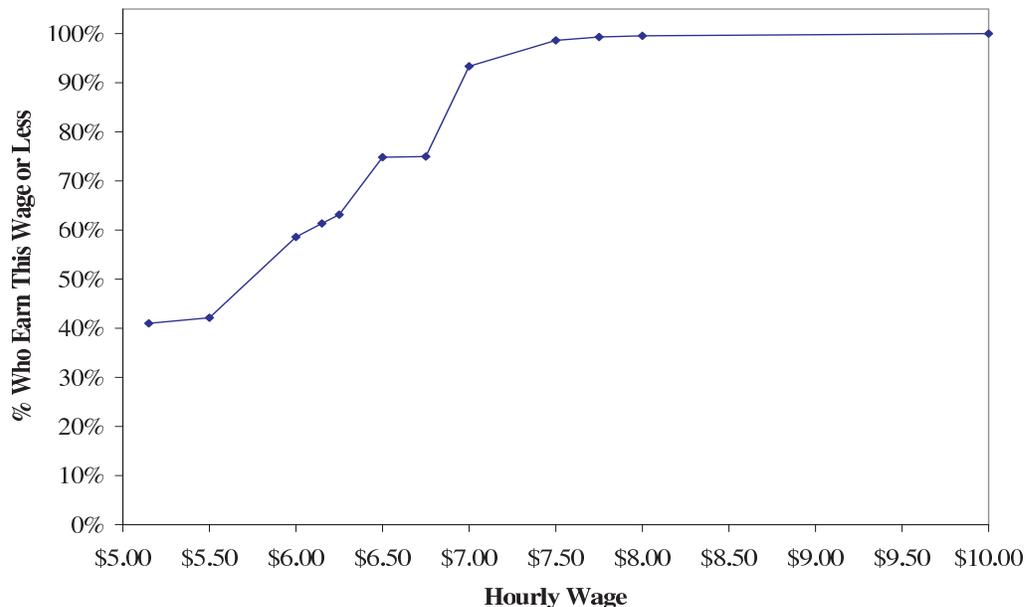
Home Help workers receive wages set by the local Departments of Human Services. The reimbursement rates are based on each task in the consumer’s care plan multiplied by the estimated time necessary to complete it, multiplied by the local wage rate. These local hourly rates vary by county, but have been the same since June 2003. In 2005, the average wage rate was \$6.07. While a few counties pay wages above \$7.00 per hour, over 90% of Home Help workers make

7. Data provided by the Michigan Department of Community Health. The number of Home Help workers is the average number of workers in a given month during the year.

8. Michigan Homecare Workers Survey conducted by The Feldman Group in December 2005.

\$7.00 or less an hour. Figure 2 on page 12 presents the percentage of workers who make a certain wage or less.

FIGURE 2. Home Help Worker Cumulative Wage Distribution, 2005



In a survey completed in 2005, 32% of respondents stated that they had a second job in addition to providing home care. Of those who responded that they have a second job, 69% said they did so to gain additional income while another 10% stated they received health benefits from their second job. Most (60%) spend between one and 40 hours per week providing homecare.

NURSING FACILITIES

In 2003 there were 431 nursing facilities in Michigan. The state licenses these facilities, regulating the quantity in the state. In 2003, there were 41,547 persons in nursing facility care.⁹ Medicaid pays for most of these clients' care. In 2005, an average of 30,538 Michigan residents per month received Medicaid-paid-for nursing facility care.¹⁰ Michigan's nursing facilities have an 85% occupancy rate.

9. AARP. "Across the States: Profiles of Long-Term Care: Michigan," 2004.

10. Data provided by the Michigan Department of Community Health. According to DCH, approximately 45,000 unique persons receive nursing facility care paid for by Medicaid.

Patients must meet specific criteria to qualify for Medicaid-funded nursing care. This criteria includes assessments of how much assistance the patient needs with Activities of Daily Living (i.e. whether the patient needs no help, cueing and encouragement, some assistance, or extensive assistance with ADLs, or is totally dependant on others), the patient's level of cognitive impairment, how much physician care the patient needs, what medical conditions the patient has, whether the patient needs rehabilitative therapy, whether the patient exhibits any "challenging behaviors" (including wandering, hallucinating, resisting care, and being abusive), and the patient's current or prior participation in other long-term care programs.

The state pays nursing facilities a fixed reimbursement rate for each Medicaid recipient in nursing facility care. Nursing facility annual cost reports are used as the basis for the rate calculations.

The 1999 National Nursing Home Survey, conducted by the Centers for Disease Control and Prevention, revealed that over 80% of nursing facility residents nationally were over 70 years old, and over 59% were over 80 years old. The nursing facility population was 3.7% of Hispanic origin, 12.4% African American, and 84% White. Over half of residents needed a level of care characterized as "skilled," the lowest level of care identified in the survey. A further 45% needed an "intermediate" level of care, while only 2.6% received a "residential" level of care.

OTHER LONG-TERM CARE OPTIONS

Other Home and Community-Based Long-Term care options include: Medicaid Home Health Services, MI Choice, Medicaid Program of All-Inclusive Care for the Elderly (PACE), and a few smaller programs.

Medicaid Home Health Services. This program provides in-home care for beneficiaries who qualify for a nursing-facility-level of care but prefer to receive care at home from a nurse or nurse's aide. In 1999, 284 home health and hospice agencies provided care for these patients.¹¹

MI Choice. MI Choice is a Medicaid waiver program that allows eligible individuals to hire a home care worker directly, or have a DCH waiver agency appoint one for them. The worker may provide a variety of services, including, for example, private-nursing care, respite services, transportation, and delivery of meals.

To qualify, an individual must be 18 years old or older, qualify for a nursing home level of care under Medicaid, and have income below 300% of the Sup-

11. Citizens Research Council, "Outline of State of Michigan Health Programs," August 2001, Report #333.

plemental Security Income (SSI) amount. There is currently no cap on the number of participants in MI Choice, but there is an effective cap on the number of persons the program can serve based the state's funding (waiver) agreement with the federal government. Prior to May 2005, the number of participants was capped at various levels between 4,000 and 15,000 slots. There are currently between 7,000 and 7,100 beneficiaries enrolled in the MI Choice program, and there were over 2,000 individuals on the waiting list for MI Choice as of June 2005.

Michigan's Medicaid Program of All-Inclusive Care for the Elderly (PACE). PACE is a managed care program for seniors who qualify for a nursing-facility-level of care under Medicaid, live near a PACE provider, and choose to continue living at home. The program uses an "adult day care" model, including assessment of and provision for a participant's needs by an interdisciplinary staff. There are currently 223 beneficiaries in the PACE program. There are two major limits on participation. First, individuals who currently live in a nursing facility or who are enrolled in the MI Choice program cannot apply for PACE. Second, there is currently only one PACE provider in Michigan (in Detroit).

There are several smaller HCBS programs in Michigan that provide a single service, and are not funded by Medicaid. These programs are often funded using federal money under Title III of the Older Americans Act, tobacco settlement funds, and cost-sharing money from enrollees. They served over 12,000 individuals in 2002, many of whom used them as a temporary measure while waiting for approval for the Medicaid waiver services discussed above.

Michigan also has two Medicaid waiver programs to provide care for individuals with mental retardation and developmental disabilities who qualify for a nursing facility level of care (one each for people over and under the age of 18).

III. Cost Comparison of Long-Term Care Options

MICHIGAN EXPENDITURES ON LONG-TERM CARE

The State of Michigan's spending on Medicaid Long-Term Care (LTC) rose by an average of 5.2% per year between 2001 and 2005. In 2001, the state spent over \$1.4 billion on long-term care. In 2005, the state spent almost \$1.8 billion.¹² See Table 3.

Most of the state's Medicaid LTC spending is for care in nursing facilities. In 2005, 81.9% of the LTC expenditures, or \$1.5 billion, was spent on nursing facility care. Home Help is the next largest program with \$203 million spent in 2005, or 11.4% of the LTC budget. In 2005, the state spent an additional \$119 million on other community-based care programs: MI Choice, Personal Care, and PACE. See Table 3 below.

TABLE 3. Michigan Expenditures on Long-Term Care (in millions), 2001-2005

	2001	2002	2003	2004	2005	% of LTC Budget, 2005
Home Help	\$200.2	\$217.0	\$209.9	\$215.9	\$203.0	11.4%
Nursing Facilities	\$1,083.1	\$1,129.5	\$1,219.5	\$1,444.3	\$1,454.1	81.9%
MI Choice Waiver	\$146.5	\$124.8	\$97.3	\$98.2	\$98.3	5.5%
AFC/HFA Personal Care	\$16.5	\$16.3	\$15.6	\$15.2	\$14.7	0.8%
PACE	\$5.0	\$6.2	\$5.3	\$5.6	\$6.0	0.3%
Total Expenditures	\$1,451.2	\$1,493.9	\$1,547.6	\$1,779.3	\$1,776.2	100%
CAGR, Total Expenditures, 2001-2005					5.2%	

*Data Source: Michigan Department of Community Health
Analysis: Anderson Economic Group, LLC*

HOME HELP EXPENDITURES

In 2005, the state spent \$203 million on the Home Help program. This is 6.0% less than it spent in 2004 and only slightly more, 1.4%, than it spent in 2001. As Table 4 demonstrates, the expenditures on services steadily increased between 2001 and 2004 before dropping slightly in 2005. On average, the cost of delivering home care services increased annually by 3%. However, the total spending on the program did not increase by 3% because the case management and administrative expenditures fell substantially, by 46.8%, between 2001 and 2005.

12. Expenditures on Long-Term Care in Michigan come from federal and state sources. In general, the State of Michigan's General Fund pays for approximately 43% of total Medicaid payments.

Cost Comparison of Long-Term Care Options

In 2001, almost three-fourths of the Home Help budget was spent on paying for home care services. By 2005, this percentage had risen to 82%. By enacting certain policy changes, such as fewer contract reviews, the state greatly reduced its administrative and case management costs. In 2001, these tasks required 16.9% of the budget, or \$33 million, but by 2005 this amount had fallen to \$18 million, or 9% of Home Help total expenditures. See Table 4 below.

TABLE 4. Michigan Home Help Program Expenditures (in millions), 2001-2005

	2001	2002	2003	2004	2005	% of 2005 Expenditures
Home Help Services	\$147.9	\$161.1	\$172.4	\$174.8	\$166.3	82%
Administrative, Case Mgmt.	\$33.8	\$35.7	\$22.5	\$16.0	\$18.0	9%
Unemployment & FICA	\$18.5	\$20.2	\$14.9	\$25.2	\$18.8	9%
Total Expenditures	\$200.2	\$217.0	\$209.9	\$215.9	\$203.0	100%
Federal Matching Share	\$112.5	\$122.3	\$120.4	\$120.7	\$115.1	56.71%
State of Michigan Expenditures	\$87.7	\$94.7	\$89.5	\$95.2	\$87.9	43.29%

Data Source: Michigan Department of Community Health

While the state spent more on Home Help in 2005 than it did in 2001, the average amount the state spent per beneficiary was lower in 2005. In 2005, the average cost per beneficiary was \$4,496; in 2001, the average cost per beneficiary was \$5,120. The average monthly number of Medicaid recipients in nursing facilities has remained consistently around 30,000 during the past five years. The average cost per beneficiary increased from \$35,554 in 2001 to \$47,616 in 2005.

The difference in the average cost per beneficiary in each type of care setting is summarized in Table 5 on page 17. The gap in the cost of paying for Home Help and nursing facility care has widened since 2001. In 2001 the average cost differential was \$30,434; but by 2005 this difference had grown to \$43,121.

Cost Comparison of Long-Term Care Options

TABLE 5. Cost Comparison of Home Help and Nursing Facilities, 2001-2005

	2001	2002	2003	2004	2005
<i>Nursing Facilities</i>					
Number of Beneficiaries ^a	30,463	30,286	30,272	30,499	30,538
Total Expenditures	\$1,083,093,568	\$1,129,504,598	\$1,219,462,855	1,444,318,508	1,454,107,521
Average Cost Per Beneficiary	<u>\$35,554</u>	<u>\$37,295</u>	<u>\$40,284</u>	<u>\$47,356</u>	<u>\$47,616</u>
<i>Home Help Program</i>					
Number of Beneficiaries ^b	39,102	41,904	44,424	45,570	45,166
Total Expenditures	\$200,198,224	\$217,007,858	\$209,882,804	\$215,916,748	\$203,049,759
Average Cost Per Beneficiary	<u>\$5,120</u>	<u>\$5,179</u>	<u>\$4,725</u>	<u>\$4,738</u>	<u>\$4,496</u>
Difference in Average Cost	\$30,434	\$32,116	\$35,559	\$42,618	\$43,121

*Data Source: Michigan Department of Community Health
Analysis: Anderson Economic Group, LLC*

- a. "Number of Beneficiaries" reflects the average number of unique Medicaid nursing facility residents per month. According to DCH, over the course of a year, the number of unique Medicaid nursing home clients is closer to 45,000.
- b. "Number of Beneficiaries" reflects the average number of unique Home Help clients per month. According to DCH, about 55,000 unique individuals are served by the Home Help program in a given year.

IV. Fiscal Impact: Methodology and Findings

OVERVIEW OF METHODOLOGY

We analyzed the fiscal impact of increased wages for Home Help workers on the State of Michigan's annual Long-Term Care expenditures. The net fiscal impact is the difference between the total cost of Home Help and nursing facilities at current and increased funding levels.

We completed the following steps to estimate the net fiscal impact:

1. Projected the Medicaid Long-Term Care Population for FY 2006 to FY 2012.
2. Developed a model of the likely new entrants to the Home Help Program if the state increased wages and expanded home care.
3. Estimated the number of persons in Home Help and in nursing facilities between FY 2006 and FY 2012 at the current and increased funding levels.
4. Modeled the new program costs accompanying a \$30 million wage increase for Home Help workers. This included modeling the costs of two different new populations that we expect to use Home Help.
5. Projected the total annual expenditures on Home Help and nursing facilities under current and increased funding levels.
6. Calculated the net fiscal impact as the difference between total program expenditures with and without the wage increase.

COST MODEL FOR HOME HELP

We hypothesize that a wage increase for Home Help workers will change the quality of care provided. Economic reasoning suggests that higher wages will attract better workers and improve the quality of care. It is this change, improvement in care quality, that will attract new entrants to the Home Help program.

We assume two kinds of new beneficiaries:

1. persons currently receiving no care; and
2. persons who would receive care from a nursing facility or similar institution.

New beneficiaries impact the cost of Home Help in two ways. First, the expansion of home care allows those who would otherwise not receive care from the state to start receiving formal care. This group creates a new cost for the state, because these are persons who, if not for Home Help, would not receive state-funded care. The second group moving into Home Help, persons who would otherwise be in nursing facilities, create cost savings for the state by using home care rather than nursing facility care.

MODEL ASSUMPTIONS

Cost Projection: Current Funding of Home Help. We modeled the annual number of beneficiaries and expenditures in the Home Help program and nursing facilities at current spending levels for FY 2006 to FY 2012.

To estimate the number of future beneficiaries in home care and nursing facilities, we relied on Census projections of the 65 and older population in Michigan. The Michigan Department of Community Health provided the number of Medicaid Long-Term Care clients in each program for March 2005. We kept the percentage of Medicaid Long-Term Care clients that are in nursing facilities, 34%, and in Home Help, 50%, constant in our current-policy projections.¹³

Next, we analyzed the average annual expenditures on Home Help and nursing facilities based on expenditure data from 2001 to 2005. As Table 5 on page 17 illustrates, the average cost per Home Help beneficiary has fallen since 2001. Rather than project that this trend continues, we used a 1% annual increase in the average cost per beneficiary. This is a realistic assumption since more hours of care will be needed per beneficiary due to an aging population. This assumption means our analysis might over-estimate the future state expenditures on Home Help, rather than under-estimate it.

To project the future annual cost of nursing facility care, we used the historic average annual growth rate in average cost per beneficiary between 2001 and 2005. Between 2001 and 2005, the cost of providing nursing home care per Medicaid beneficiary grew annually at 4.37%. We used this growth rate for our cost projections for FY 2006 to FY 2012.

Cost Projection: Wage Increase in Home Help. We projected the number of future beneficiaries and modeled the annual expenditures of nursing facilities and Home Help based on our assumptions for how care will change with a wage increase. See “Cost Projection: Current Funding of Home Help.” on page 18.

As with our current-funding-level projections, we used the Census’ estimates of the 65 and older population as the base for our future beneficiary projections. Instead of holding the percentage of Long-Term Care clients in each program at the 2005 level for FY 2006 to FY 2012, we decreased the percentage of LTC clients in nursing facilities and increased the percentage in Home Help. This will likely occur if home care is expanded and improves in quality, allowing more clients to receive care in their own homes.

In addition to diverting new LTC clients into Home Help and away from nursing facility care, we projected additional persons moving into Home Help from no care. We analyzed the historic annual increases in the number of beneficiaries in the Home Help program. Between 2001 and 2005, the number of persons in Home Help grew annually at 3.67%. We hypothesized that a wage increase

13. We decided to assign the same percentage of Medicaid LTC patients to Home Help despite the state’s planned efforts to increase participation in home care programs. The effects of such an initiative are uncertain. Furthermore, the state policy would affect both cost projections with and without the policy change, so the effect on our analysis would be limited.

would further increase the number of persons moving into home care. Thus, we assumed a 4% overall annual increase in the number of Home Help beneficiaries.

To project the future annual cost of Home Help with increased funding, we first estimated the average cost for three different groups:

1. Continuing Home Help clients
2. New Home Help clients from no state-funded care
3. New Home Help clients who would otherwise be in nursing facilities

We assumed that the continuing Home Help clients will require the current average amount of care, or 55 hours per month. We assumed that the average client from no previous state-funded home care will require fewer hours of care, 25 hours, while the average patient who would otherwise have entered a nursing facility will require twice as much care, or 110 hours.

To arrive at an average annual cost per Home Help beneficiary, we first projected the total expenditures for each of the three categories of Home Help clients, then added them together and divided by the number of beneficiaries in the appropriate year. Our cost projections for each type of Home Help client are based on the wage, which increased by \$30 million in FY 2007 for an average increase from \$5.58 to \$6.25, and number of hours of care. Next, we assumed that administrative costs per person fell back to the FY 2004 level at \$351 to reflect lower costs associated with lower turnover of workers.

While these projections include a wage increase of \$30 million, the total expenditures on Home Help did not increase by the full \$30 million between the baseline year of FY 2005 and FY 2007.

To project nursing facility costs per client between FY 2007 and FY 2012, we assumed that nursing facility costs would increase slightly more than the 4.37% we used in our cost projections under current funding. Our rationale for increasing the average annual cost increase to 4.50% is that the population remaining in nursing facilities are those persons who need the most care and medical attention.

FINDINGS

Cost Savings to Federal and State Governments. For the first year that wages are increased for Home Help workers, fiscal year 2007, we estimate that the government will spend \$25.2 million less on Medicaid Long-Term Care. The state will spend \$21 million more on Home Help than it would have without the wage increase, but \$46 million less on nursing facility care for a total cost savings of \$25 million. We estimate that by fiscal year 2012 the cost savings for federal and state governments will be \$70.5 million. See Table 6 on page 21.

The total cost savings figure includes expenditures by the state and federal government. It also includes expenditures that are funded by a nursing facility provider tax levied on all nursing facilities in Michigan. This tax funds about 25% of Medicaid payments to nursing facilities and allows Michigan to collect additional Medicaid matching funds from the federal government. We report the total difference in expenditures on Home Help and nursing facilities to give an idea of magnitude of the cost savings regardless of the revenue source.

Cost Savings to the State of Michigan. We estimate that the cost savings to Michigan’s General Fund, the account used to pay the state’s share of Medicaid program costs, will be \$5.9 million in fiscal year 2007. As more beneficiaries are diverted away from nursing facilities and into Home Help, the cost savings grow. We estimate that by fiscal year 2012 the annual cost savings for Michigan’s General Fund will be \$16.3 million. See Table 6 below and Appendix B.

In 2005, the State of Michigan paid 43.3% of Home Help Program costs while the federal government paid 56.7%. We have made the simplifying assumption that the State of Michigan will continue to pay 43.3% of Home Help Program costs in upcoming years. The State of Michigan pays the same share of program costs for Medicaid-funded nursing facility care. In our analysis we have applied this state share to only three-quarters of nursing facility expenditures as 25% of nursing facility Medicaid payments are supported by the nursing facility provider tax and not the General Fund.

TABLE 6. Net Fiscal Impact of a Wage Increase for Home Help Workers (amounts in millions), FY 2007-2012

	Baseline 2005	Policy Change 2007	2008	2009	2010	2011	2012
<i>Without a Wage Increase</i>							
Total Home Help Cost	\$203.0	\$214.3	\$220.2	\$226.2	\$232.4	\$238.8	\$245.3
Total Nursing Facility Cost	<u>\$1,454.1</u>	<u>\$1,648.3</u>	<u>\$1,750.0</u>	<u>\$1,857.9</u>	<u>\$1,972.5</u>	<u>\$2,094.1</u>	<u>\$2,223.2</u>
Total Annual Program Cost	\$1,657.2	\$1,862.7	\$1,970.2	\$2,084.1	\$2,204.9	\$2,332.9	\$2,468.5
<i>With a Wage Increase</i>							
Total Home Help Cost	\$203.0	\$235.6	\$247.8	\$261.6	\$276.2	\$290.3	\$306.3
Total Nursing Facility Cost	<u>\$1,454.1</u>	<u>\$1,601</u>	<u>\$1,689.9</u>	<u>\$1,782.6</u>	<u>\$1,880.3</u>	<u>\$1,983.2</u>	<u>\$2,091.7</u>
Total Annual Program Cost	\$1,657.2	\$1,837.4	\$1,937.6	\$2,044.2	\$2,156.5	\$2,273.5	\$2,398.0
Net Fiscal Impact (Cost Savings)	-	\$25.2	\$32.6	\$39.9	\$48.4	\$59.4	\$70.5
<i>memo:</i>							
<i>Cost Savings for the State of Michigan^a</i>	-	\$5.9	\$7.6	\$9.1	\$11.0	\$13.7	\$16.3

Source: Anderson Economic Group, LLC

a. The cost savings presented here are for the State of Michigan’s General Fund. This assumes that 25% of the total expenditures on nursing facilities comes from a nursing facility provider tax.

V. Private Benefits and Costs: Methodology and Findings

OVERVIEW OF PRIVATE BENEFITS

New beneficiaries entering the Home Help program due to greater quality and availability of Home Help providers will benefit in the same ways that existing beneficiaries do: it improves their quality of life. To qualify for the Home Help program, beneficiaries must need assistance with ADLs; each beneficiary's level of need determines how much he or she benefits from the program. We describe the benefits experienced by two kinds of beneficiaries that we expect to enter the Home Help program as a result of the policy change:

1. Those who would enter (or remain in) a nursing facility if they did not enter the Home Help Program.
2. Those who would not have any formal long-term care (but who may be helped informally by friends and relatives) if they did not enter the Home Help program.

Beneficiaries Otherwise in a Nursing Facility. New Home Help enrollees who would otherwise be in a nursing facility experience a tremendous improvement in their quality of life by comparison. For this population, simply being able to live in their own home allows a sense of dignity and independence not available in even the best nursing facilities. The Home Help program allows most of its beneficiaries this freedom; in a survey, over 70% of beneficiaries said they lived in their own home. A further 20% live in "someone else's home;" many of these respondents likely live with relatives.

While the value of these individual benefits cannot be quantified, we quantify the loss to society associated with homes left unoccupied as people move into a nursing facility. For details of this analysis, see "Overview of Methodology" on page 23.

Beneficiaries Otherwise with no Formal Long-Term Care. Other new Home Help enrollees would otherwise receive no formal long-term care at all. Some of this population will simply be formalizing an existing care arrangement with a friend or relative, allowing the caregiver to be paid for his or her work. If being paid to provide care allows the care provider to work fewer hours at other jobs, the result may be more hours of care per week and more flexibility on when the care is provided (i.e., on what days and at what times). More care—and more timely care—leads to a clear, direct improvement in beneficiaries's quality of life. In addition to these direct benefits, the pay provided by Home Help enrollment will allow beneficiaries to feel less like a burden on the (previously unpaid) friends or relatives who care for them.

Other new enrollees will receive long-term care for the first time under Home Help. This population will benefit tremendously by receiving help with their

most difficult (and perhaps most-neglected) daily activities. Even those who receive few hours of help per week will enjoy the comfort—and reduced and anxiety—of living in a more predictable, orderly environment. Having regular contact with someone who cares, even if it is in addition to contact with family and friends, can reduce the loneliness experienced by people who need help with ADLs and may have limited mobility.

OVERVIEW OF METHODOLOGY

We analyzed the economic impact in the State of Michigan of increased wages for Home Help workers. We focused on how increased enrollment in Home Help reduces the costs associated with nursing facility residents owning and maintaining a home that no one lives in.

We followed the following steps to estimate the loss associated with each person who lives in a nursing facility but has not yet sold their home:

1. Estimated the amount of rent “income” the average homeowner enrolled in Home Help receives from his or her home.
2. Estimated the average losses to homeowners related to deterioration of their home if they were not able to adequately maintain it while in nursing care.

HOUSING COSTS MODEL

Some fraction (not estimated in this report) of Medicaid beneficiaries who live in nursing facilities still own the home they lived in previously. This may be because they plan to be in nursing care only while they rehabilitate from a medical procedure, or because they have not yet sold their home. (For example, they may have difficulty managing such a complex transaction, or may still be in the estate planning process.)

Each homeowner whom Home Help allows to remain in their home (and avoid moving to a nursing facility) avoids incurring an indirect—but significant—cost: losing the rent income they had been collecting from their home, which is the amount they would have to pay to rent a similar home. In this sense, an unoccupied home is producing income that simply vanishes when no one is there to collect it. Therefore, all of this foregone rent income is not only a loss to the beneficiary, but is also a loss to society.

There is another, direct cost which these beneficiaries avoid by staying in their own homes, which stems from the deterioration of their home and property as they are unable to adequately maintain them while in a nursing facility. This is a realistic scenario since a beneficiary’s primary residence is not counted against their eligibility for Medicaid assistance, but any other assets they might use to pay maintenance costs are counted, and must therefore be “spent down” before Medicaid payment can begin. The cost of a deteriorated home and property is amplified by its impact on the homeowner’s neighbors, whose own property value may be affected by their proximity to a home in disrepair.

MODEL ASSUMPTIONS

Cost of Lost Rent. To calculate the forgone rent income associated with each unoccupied home, we started with 2004 data from ESRI on the value of owner-occupied housing by county, and estimated a cumulative distribution of home values for each county in Michigan. We then made the following assumptions that allowed us to determine the average home value in the Home Help beneficiary population:

1. Beneficiaries living at home instead of a nursing facility as a result of the policy change live, on average, in a home valued at the 25th percentile home value for the county in which they live.
2. The price-to-earnings ratio of residential real estate is 20. (This means the annual rent is $1/20^{\text{th}}$ the value of the home, and implies a 5% rate of return.)

We calculated the annual lost earnings for Home Help beneficiaries in each county in Michigan. We then used data on the distribution of Home Help beneficiaries across Michigan counties to calculate the weighted average of annual rent earnings per homeowner for the entire Home Help beneficiary population in the state

Cost Due to Lost Property Value. To calculate the value each unoccupied home will lose, we started with survey data from the 2004 Consumer Expenditure Survey (conducted by the federal Bureau of Labor Statistics) on what the average homeowner spent in 2004 on “Maintenance, repairs, insurance, other expenses,” and adjusted these values to reflect the distributions of age, income, race and ethnicity, in the Home Help population. This approach required the following assumptions:

1. That each demographic factor has a separate effect on average maintenance expenses. For example, we assume that the effect of age on maintenance costs does not vary with the beneficiary’s income.
2. That individuals staying in their homes rather than entering a nursing facility have approximately the same home-related expenses as the average Home Help beneficiary.
3. That the actual decline in property value is 1 and 1/2 times the estimated average amount spent annually on “maintenance, repairs, insurance, and other expenses,” since a house in disrepair deteriorates faster than would one that is well-maintained.
4. That the loss to the homeowner due to property deterioration is the difference between the lost property value and the estimated average expenditure on “maintenance, repairs, insurance, other expenses,” which the homeowner would have had to pay anyway if he or she had stayed in the home.
5. That most Home Help beneficiaries would not have been able to pay for maintenance on their homes while in a Medicaid- or Medicare-funded nursing facility. (This might be the case if he or she did not have family nearby capable of managing such maintenance, or if “spending down” his or her assets did not leave adequate funds to pay for it.)

FINDINGS

We estimate that new Home Help beneficiaries who would otherwise live in a nursing facility, but still own their own home, each avoid \$498 annually due to lost property value from inadequate maintenance and repairs on their home. Additionally, some fraction of this loss will ripple through their former neighborhood as the home's falling property value affects that of other neighborhood homes. We further estimate that they each avoid \$4,302 each in lost rent income. This is capital income that vanishes from society when no one is there to collect it.

Table 7: Lost Rent Income

County	Proportion of Home Help Beneficiaries	Estimated 25th Percentile House Value	Estimated Annual Rent Earnings	Contribution to Weighted Average Rent Income
Alcona	0.1%	\$ 71,203	\$ 3,560	\$ 4.31
Alger	0.0%	\$ 60,056	\$ 3,003	\$ 1.17
Allegan	0.5%	\$ 102,603	\$ 5,130	\$ 26.82
Alpena	0.4%	\$ 70,559	\$ 3,528	\$ 13.42
Antrim	0.2%	\$ 83,386	\$ 4,169	\$ 8.11
Arenac	0.3%	\$ 60,256	\$ 3,013	\$ 9.18
Baraga	0.1%	\$ 50,044	\$ 2,502	\$ 3.35
Barry	0.4%	\$ 113,974	\$ 5,699	\$ 21.67
Bay	1.4%	\$ 70,874	\$ 3,544	\$ 47.93
Benzie	0.2%	\$ 100,223	\$ 5,011	\$ 8.45
Berrien	1.7%	\$ 75,295	\$ 3,765	\$ 63.69
Branch	0.2%	\$ 68,428	\$ 3,421	\$ 7.24
Calhoun	1.3%	\$ 61,834	\$ 3,092	\$ 39.61
Cass	0.4%	\$ 71,949	\$ 3,597	\$ 13.52
Charlevoix	0.1%	\$ 102,400	\$ 5,120	\$ 7.30
Cheboygan	0.4%	\$ 73,914	\$ 3,696	\$ 13.41
Chippewa	0.4%	\$ 59,106	\$ 2,955	\$ 10.98
Clare	0.3%	\$ 48,665	\$ 2,433	\$ 8.36
Clinton	0.2%	\$ 118,884	\$ 5,944	\$ 11.82
Crawford	0.1%	\$ 64,460	\$ 3,223	\$ 4.32
Delta	0.4%	\$ 64,722	\$ 3,236	\$ 12.80
Dickinson	0.3%	\$ 53,481	\$ 2,674	\$ 7.22
Eaton	0.5%	\$ 115,457	\$ 5,773	\$ 30.06
Emmet	0.4%	\$ 115,576	\$ 5,779	\$ 20.60
Genesee	5.4%	\$ 59,195	\$ 2,960	\$ 161.21
Gladwin	0.3%	\$ 60,539	\$ 3,027	\$ 9.42
Gogebic	0.1%	\$ 33,467	\$ 1,673	\$ 2.02
Grand Traverse	0.4%	\$ 118,797	\$ 5,940	\$ 23.49
Gratiot	0.3%	\$ 61,653	\$ 3,083	\$ 8.06
Hillsdale	0.3%	\$ 71,718	\$ 3,586	\$ 11.23
Houghton	0.3%	\$ 43,445	\$ 2,172	\$ 6.43
Huron	0.3%	\$ 65,227	\$ 3,261	\$ 8.39
Ingham	2.5%	\$ 84,501	\$ 4,225	\$ 107.26
Ionia	0.4%	\$ 82,391	\$ 4,120	\$ 14.60
Iosco	0.3%	\$ 66,876	\$ 3,344	\$ 10.19
Iron	0.2%	\$ 40,812	\$ 2,041	\$ 3.97
Isabella	0.6%	\$ 75,760	\$ 3,788	\$ 22.59
Jackson	1.3%	\$ 76,102	\$ 3,805	\$ 49.33
Kalamazoo	2.3%	\$ 97,018	\$ 4,851	\$ 110.36
Kalkaska	0.1%	\$ 67,746	\$ 3,387	\$ 4.54
Kent	3.9%	\$ 112,901	\$ 5,645	\$ 220.27
Keweenaw	0.0%	\$ 37,589	\$ 1,879	\$ 0.49
Lake	0.2%	\$ 42,507	\$ 2,125	\$ 4.68
Lapeer	0.3%	\$ 122,182	\$ 6,109	\$ 21.12
Leelanau	0.0%	\$ 144,711	\$ 7,236	\$ 1.56
Lenawee	0.5%	\$ 102,775	\$ 5,139	\$ 24.20
Livingston	0.5%	\$ 188,696	\$ 9,435	\$ 43.01
Luce	0.1%	\$ 48,037	\$ 2,402	\$ 1.97
Mackinac	0.1%	\$ 72,931	\$ 3,647	\$ 2.92
Macomb	6.3%	\$ 121,917	\$ 6,096	\$ 381.29
Manistee	0.4%	\$ 62,712	\$ 3,136	\$ 12.19
Marquette	0.5%	\$ 61,065	\$ 3,053	\$ 15.90
Mason	0.2%	\$ 69,401	\$ 3,470	\$ 7.05
Mecosta	0.5%	\$ 67,885	\$ 3,394	\$ 16.13
Menominee	0.3%	\$ 48,491	\$ 2,425	\$ 8.38
Midland	0.8%	\$ 79,873	\$ 3,994	\$ 33.91
Missaukee	0.1%	\$ 63,983	\$ 3,199	\$ 3.11
Monroe	0.7%	\$ 117,126	\$ 5,856	\$ 40.36
Montcalm	0.5%	\$ 69,189	\$ 3,459	\$ 18.54
Montmorency	0.1%	\$ 62,235	\$ 3,112	\$ 3.97
Muskegon	1.8%	\$ 63,309	\$ 3,165	\$ 57.52
Newaygo	0.6%	\$ 65,809	\$ 3,290	\$ 19.27
Oakland	7.8%	\$ 146,811	\$ 7,341	\$ 570.80
Oceana	0.3%	\$ 63,747	\$ 3,187	\$ 10.40
Ogemaw	0.6%	\$ 59,097	\$ 2,955	\$ 16.53
Ontonagon	0.1%	\$ 36,218	\$ 1,811	\$ 1.92
Osceola	0.3%	\$ 58,662	\$ 2,933	\$ 8.43
Oscoda	0.1%	\$ 55,548	\$ 2,777	\$ 2.70
Otsego	0.3%	\$ 104,253	\$ 5,213	\$ 17.57
Ottawa	0.6%	\$ 120,352	\$ 6,018	\$ 34.84
Presque Isle	0.1%	\$ 61,530	\$ 3,076	\$ 3.86
Roscommon	0.4%	\$ 63,904	\$ 3,195	\$ 11.60
Saginaw	2.6%	\$ 57,029	\$ 2,851	\$ 73.99
Sanilac	0.4%	\$ 79,364	\$ 3,968	\$ 16.89
Schoolcraft	0.1%	\$ 46,946	\$ 2,347	\$ 3.40
Shiawassee	0.4%	\$ 98,570	\$ 4,928	\$ 21.30
St. Clair	1.2%	\$ 113,742	\$ 5,687	\$ 69.30
St. Joseph	0.4%	\$ 73,016	\$ 3,651	\$ 13.49
Tuscola	0.4%	\$ 73,572	\$ 3,679	\$ 15.90
Van Buren	0.8%	\$ 69,855	\$ 3,493	\$ 26.26
Washtenaw	1.9%	\$ 163,448	\$ 8,172	\$ 152.20
Wayne	37.0%	\$ 72,087	\$ 3,604	\$ 1,332.98
Wexford	0.4%	\$ 60,351	\$ 3,018	\$ 11.61
			Total	\$ 4,302.20

Data Source: ESRI
 Analysis: Anderson Economic Group, LLC

Appendix A-1: Home Care Cost-Benefit Model: Input Database

						Input Value	Policy Change	Source					
A. Home Help Program Costs	2000	2001	2002	2003	2004	2005	2007						
Total Expenditures (includes state & federal spending), 2005	\$	200,198,224	\$	217,007,858	\$	209,882,804	\$	215,916,748	\$	203,049,759	\$	233,129,432	DCH
Home Help Expenditures		147,859,762		161,066,480		172,429,924		174,760,184		166,250,192		196,564,165	DCH
Administrative, Case Management Expenditures		33,838,462		35,741,378		22,505,779		16,000,000		18,000,000		16,730,979	DCH
Unemployment & FICA		18,500,000		20,200,000		14,947,101		25,156,564		18,799,568		19,834,288	DCH
Federal Share		112,471,362		122,305,629		120,409,765		120,675,870		115,149,519			DCH
State Share		87,726,862		94,702,229		89,473,039		95,240,877		87,900,241			DCH
Federal Matching Share (%)		56.18%		56.36%		57.37%		55.89%		56.71%			DCH
State (%)		43.82%		43.64%		42.63%		44.11%		43.29%			
CAGR, Total Expenditures										0.35%			
CAGR, Home Help Administrative Costs										-14.60%			
CAGR, Home Help Expenditures										2.97%			
B. Home Help Workers	2000	2001	2002	2003	2004	2005							
Monthly Average Number of Providers		34,801		37,295		39,537		40,154		40,297			DCH
Average Wages	\$	4,249	\$	4,319	\$	4,361	\$	4,352	\$	4,126			AEG
Yearly Wage per Worker													
Average Hourly Wage (based on 55 hours of work per month)								\$		6.25			AEG
C. Home Help Care Beneficiaries	2000	2001	2002	2003	2004	2005							
Average Monthly Number of Beneficiaries		39,102		41,904		44,424		45,570		45,166		47,652	DCH
CAGR 2001-2005										3.67%			
Number of beneficiaries by Number of ADL Services													DCH
0										11,668			
1-2										10,573			
3-7										24,065			
Average Hours of Home Help Services per month										55			DCH
D. Program Expenditures for Home Help Program	2000	2001	2002	2003	2004	2005							
Per Beneficiary													
Average Total Spending	\$	5,120	\$	5,179	\$	4,725	\$	4,738	\$	4,496	\$	4,892	
Average Annual Wage	\$	3,781	\$	3,844	\$	3,881	\$	3,835	\$	3,681	\$	4,125	AEG
Average Hourly Wage								\$		5.58	\$	6.25	
<i>memo: this assumes an average of 55 hours per month in services</i>													
Average Administrative Cost	\$	865	\$	853	\$	507	\$	351	\$	399		351	AEG
Average Annual State Spending	\$	2,244	\$	2,260	\$	2,014	\$	2,090	\$	1,946			AEG
Average Total Hourly Spending per Beneficiary								\$		6.81			
Average FICA/Unemployment per Beneficiary		473		482		336		552		416		416	
CAGR, Average Total Spending, 2001-2005										-3.20%			
Per Worker													AEG
Average Total Spending	\$	5,753	\$	5,819	\$	5,308	\$	5,377	\$	5,039			
Average Annual Wage	\$	4,249	\$	4,319	\$	4,361	\$	4,352	\$	4,126			AEG
Average Administrative Cost	\$	972	\$	958	\$	569	\$	398	\$	447			AEG
Average Annual State Spending	\$	2,521	\$	2,539	\$	2,263	\$	2,372	\$	2,181			AEG

Appendix A-1. Home Care Cost-Benefit Model: Input Database (continued)

D. Medicaid LTC Cost Information	2000	2001	2002	2003	2004	2005	Source
Total Expenditures on Long Term Care	\$ 1,449,981,811	\$ 1,492,228,932	\$ 1,552,900,169	\$ 1,779,425,783	\$ 1,779,268,980		DCH
Nursing Facilities	1,083,093,568	1,129,504,598	1,219,462,855	1,444,318,508	1,454,107,521		DCH
MI Choice Waiver	146,504,108	124,822,424	97,301,099	98,202,203	98,294,188		DCH
Home Help Svcs.	165,118,234	179,700,475	192,708,925	195,168,314	186,237,863		DCH
Home Help Case Mgt.	33,838,462	35,741,378	22,505,779	20,920,184	19,901,469		DCH
AFC/HFA Personal Care	16,451,457	16,279,791	15,647,291	15,227,986	14,686,821		DCH
PACE	4,975,982	6,180,266	5,274,220	5,588,588	6,041,118		DCH
CAGR, Nursing Facility Expenditures, 2001-2005						5.2%	
Number of Nursing Facility Residents	40,417	40,448	39,457	41,230			Paper
Number of Medicaid Nursing Facility Residents		30,463	30,286	30,272	30,499	30,538	DCH
CAGR, Medicaid N.F. Patients (2000-2003)				-0.21%			
Average Annual Nursing Facility Cost per Beneficiary (Medicaid)	\$ 35,554	\$ 37,295	\$ 40,284	\$ 47,356	\$ 47,616		DCH
CAGR, Average Annual N.F. Cost per Beneficiary					7.58%		
Average Hourly Wage of Nursing Facility Worker in Michigan	\$ 11.83	\$ 12.17	\$ 12.75	\$ 13.15	\$ 12.90		BLS
Average Hourly Wage of Nursing and Residential Care Facility Worker in Michigan	\$ 11.41	\$ 11.61	\$ 11.99	\$ 12.08	\$ 12.28		BLS

Analysis: Anderson Economic Group, LLC

Appendix A-2. Medicaid Long-Term Care Population Projections

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Michigan Population	9,835,000	9,862,648	9,890,373	9,918,176	9,946,058	9,974,017	10,002,056	10,030,173	10,058,369	10,086,645	10,115,000
CAGR, 2005-2010	0.28%										
65+ Population	1,219,540	1,240,528	1,261,878	1,283,594	1,305,685	1,328,156	1,351,013	1,374,264	1,397,915	1,421,973	1,446,445
% 65 +	12.4%	12.6%	12.8%	12.9%	13.1%	13.3%	13.5%	13.7%	13.9%	14.1%	14.3%
CAGR, 65+ 2005-2015	1.72%										
Medicaid LTC Patients	90,332	91,887	93,468	95,077	96,713	98,377	100,070	101,792	103,544	105,326	107,139
LTC % 65+	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%
Home Help	45,166	45,943	46,734	47,538	48,356	49,189	50,035	50,896	51,772	52,663	53,569
% Home Help of LTC	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Nursing Facilities	30,713	31,241	31,779	32,326	32,882	33,448	34,024	34,609	35,205	35,811	36,427
% Nursing Facility of LTC	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%
MI Choice Waiver & PACE	7,227	7,351	7,477	7,606	7,737	7,870	8,006	8,143	8,284	8,426	8,571
% MI Choice of LTC	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
AFC/HFA Personal Care	7,227	7,351	7,477	7,606	7,737	7,870	8,006	8,143	8,284	8,426	8,571
% AFC/HFA of LTC	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%

Data Source: Department of Community Health, U.S. Census Bureau
 Analysis: Anderson Economic Group

Appendix B-1. Public Costs and Benefits of Wage Increase in Home Help Program

		<u>Baseline</u>		<u>Policy Change</u>					
	<i>Memo:</i>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Home Help Program (with No Policy Change)									
Population in Medicaid Long Term Care Programs		90,332	91,887	93,468	95,077	96,713	98,377	100,070	101,792
% in Home Help	50%	45,166	45,943	46,734	47,538	48,356	49,189	50,035	50,896
% in Nursing Facilities	34%	30,538	31,241	31,779	32,326	32,882	33,448	34,024	34,609
% in Other	16%	14,453	14,702	14,955	15,212	15,474	15,740	16,011	16,287
<i>Memo: Same % of LTC each year.</i>									
Average Annual Expenditures per Beneficiary									
Home Help Program	1.0% (a)	\$ 4,496	\$ 4,541	\$ 4,586	\$ 4,632	\$ 4,678	\$ 4,725	\$ 4,772	\$ 4,820
Nursing Facilities	4.37% (b)	\$ 47,616	\$ 49,697	\$ 51,869	\$ 54,136	\$ 56,501	\$ 58,970	\$ 61,547	\$ 64,237
Annual Program Cost									
Home Help		\$ 203,049,759	\$ 208,609,672	\$ 214,321,826	\$ 220,190,391	\$ 226,219,649	\$ 232,414,000	\$ 238,777,965	\$ 245,316,188
Nursing Facilities		\$ 1,454,107,521	\$ 1,552,611,304	\$ 1,648,348,415	\$ 1,749,988,867	\$ 1,857,896,672	\$ 1,972,458,288	\$ 2,094,084,001	\$ 2,223,209,399
Total Program Expenditures (H.H. and N.F.)		\$ 1,657,157,280	\$ 1,761,220,976	\$ 1,862,670,241	\$ 1,970,179,258	\$ 2,084,116,321	\$ 2,204,872,288	\$ 2,332,861,966	\$ 2,468,525,587
Home Help (with Policy Change)									
Population in Medicaid Long Term Care Programs		90,332	91,887	93,468	95,077	96,713	98,377	100,070	101,792
% in Home Help		50.00%	50.00%	51.00%	51.25%	51.50%	51.75%	52.00%	52.25%
% in Nursing Facilities		34.00%	34.00%	33.00%	32.75%	32.50%	32.25%	32.00%	31.75%
% in Other		16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
Number of Beneficiaries									
In Home Help	4% (c)	45,166	45,943	47,781	49,692	51,680	53,747	55,897	58,133
<i>Memo: 1.5% increase between FY 2005-FY 2006 before wage increase.</i>									
In Nursing Facilities		30,538	31,241	30,844	31,138	31,432	31,727	32,022	32,319
Average Annual Expenditure per Beneficiary									
Home Help Program	1.00% (a)	\$ 4,496	\$ 4,541	\$ 4,931	\$ 4,986	\$ 5,063	\$ 5,140	\$ 5,193	\$ 5,269
<i>Memo: Same average expenditures as above for FY 2005 and FY 2006 as wage increase does not start until FY 2007.</i>									
<i>Memo: Rise in average cost between FY 2006 and FY 2007 reflects policy change of higher wages.</i>									
Nursing Facilities	4.50% (d)	\$ 47,616	\$ 49,697	\$ 51,934	\$ 54,271	\$ 56,713	\$ 59,265	\$ 61,932	\$ 64,719
Annual Program Cost									
Home Help		\$ 203,049,759	\$ 208,609,672	\$ 235,584,800	\$ 247,765,731	\$ 261,649,328	\$ 276,234,697	\$ 290,297,858	\$ 306,328,332
Nursing Facilities		\$ 1,454,107,521	\$ 1,552,611,304	\$ 1,601,860,324	\$ 1,689,852,844	\$ 1,782,575,042	\$ 1,880,273,640	\$ 1,983,207,677	\$ 2,091,649,082
Total Program Expenditures (H.H. and N.F.)		\$ 1,657,157,280	\$ 1,761,220,976	\$ 1,837,445,125	\$ 1,937,618,575	\$ 2,044,224,370	\$ 2,156,508,337	\$ 2,273,505,535	\$ 2,397,977,413
Net Fiscal Impact of Policy Change on Federal & State Governments (Cost Savings)		\$ -	\$ -	\$ 25,225,117	\$ 32,560,683	\$ 39,891,951	\$ 48,363,951	\$ 59,356,431	\$ 70,548,174
Net Impact on State of Michigan's General Fund		\$ -	\$ -	\$ 5,888,779	\$ 7,587,298	\$ 9,117,542	\$ 10,960,071	\$ 13,695,809	\$ 16,302,189

Notes:

- (a) Between FY 2004 and FY 2005, average cost fell per beneficiary. We use a small increase in cost driven by an increase in hours to ensure we have not under-estimated program cost.
- (b) Average annual increase in nursing facility cost per beneficiary between FY 2001 and FY 2005.
- (c) Number of Home Help beneficiaries increased on average 3.67% between FY 2001 and FY 2005. We have assumed a slightly higher increase due to higher wages at 4%.
- (d) 4.5% is slightly higher than the historic average increase in nursing facility cost per beneficiary, 4.37%. We use a slightly higher increase in cost to reflect the additional cost of caring for the most ill patients in nursing facilities.

Source: Anderson Economic Group, LLC

Appendix B-2. Calculations of Average Expenditures per Home Help Beneficiary with Policy Change

	<i>Memo:</i>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Home Help (with Policy Change)									
Medicaid LTC Clients		90,332	91,887	93,468	95,077	96,713	98,377	100,070	101,792
% in Home Help		50%	50.0%	51%	51.25%	51.5%	51.75%	52%	52.25%
% in Nursing Facilities		34%	34.0%	33%	32.75%	32.5%	32.25%	32%	31.75%
% Other		16%	16%	16%	16%	16%	16%	16%	16%
Eligible Population									
In Home Help (<i>Assumes a 4% Annual Increase in Number</i>)	4%	45,166	45,943	47,781	49,692	51,680	53,747	55,897	58,133
Number Continuing Care		45,166	45,166	45,943	47,303	49,195	51,163	52,672	54,779
Number from N.F.				935	1,188	1,451	1,722	2,001	2,290
Number from No Care			777	903	1,201	1,034	862	1,223	1,063
Total Annual Increase into H.H.			777	1,838	1,911	1,988	2,067	2,150	2,236
In Nursing Facilities		30,713	31,241	30,844	31,138	31,432	31,727	32,022	32,319
Program Expenditures									
Average Annual Expenditure per Existing H.H. Beneficiary		4,496	4,541	4,892	4,941	4,991	5,041	5,091	5,142
Wages (<i>Assumes \$6.25/hour, 55 hours of care per month for FY 2007-2010</i>)		3,681	3,718	4,125					
Administrative costs		399		351					
FICA/Unemployment		416		416					
<i>Total Expenditure per Beneficiary, Continuing H.H. Beneficiaries</i>	\$	203,049,759		224,770,303	233,737,739	245,518,121	257,892,234	268,153,740	281,668,688
Average Annual Expenditure per New H.H. Beneficiary (from no care)		-	-	2,642	2,669	2,695	2,722	2,750	2,777
Wages (<i>Assumes \$6.25/hour, 25 hours of care per month</i>)				1,875					
Administrative Cost				351					
FICA/Unemployment				416					
<i>Total Expenditure per Beneficiary, No Previous Care</i>				2,386,172	3,204,105	2,786,886	2,347,795	3,363,965	2,953,453
Average Annual Expenditure per H.H. Beneficiary from N.F.		-	-	9,017	9,108	9,199	9,291	9,383	9,477
Wages (<i>Assumes \$6.25/hour, 110 hours of care per month</i>)				8,250					
Administrative Cost				351					
FICA/Unemployment				416					
<i>Total Expenditures, H.H. Beneficiaries from Nursing Facilities</i>				8,428,325	10,823,887	13,344,321	15,994,668	18,780,153	21,706,191
Average Total Expenditure per Home Help Beneficiary		4,496	4,541	4,931	4,986	5,063	5,140	5,193	5,269
Total Home Help Program Cost		203,049,759	208,609,672	235,584,800	247,765,731	261,649,328	276,234,697	290,297,858	306,328,332

Source: Anderson Economic Group, LLC

VIII. Appendix C: About AEG

Anderson Economic Group, LLC specializes in providing consulting services in economics, finance, public policy, and market assessments. Our approach to work in these fields is based on our core principles of professionalism, integrity, and expertise.

This project was conducted under the direction of Caroline M. Sallee, senior analyst with Anderson Economic Group, LLC. Alexander L. Rosaen assisted with the project.

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Ms. Sallee is a senior analyst at Anderson Economic Group, working in the finance and business valuation and economic and fiscal impact practice areas. Ms. Sallee's background is in applied economics and public finance.

Prior to joining Anderson Economic Group, Ms. Sallee worked for the U.S. General Accounting Office as a member of the Education, Workforce and Income Security team. She has also worked as an analyst for Hábitus, a market research firm in Quito, Ecuador, and as a legislative assistant for two U.S. Representatives.

Ms. Sallee holds a Master's degree in Public Policy from the University of Michigan and a Bachelor's degree in Economics and History from Augustana College.

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Mr. Rosaen is an analyst at Anderson Economic Group, working in the economic and fiscal impact and policy and regulatory analysis practice areas. Mr. Rosaen's background is in applied economics and public finance.

Prior to joining Anderson Economic Group, Mr. Rosaen worked for the Office of Retirement Services (part of the Michigan Department of Management and Budget) for the Benefit Plan Design group. He has also worked as a mechanical engineer for Williams International in Walled Lake, MI.

Mr. Rosaen holds a Masters in Public Policy from the Gerald R. Ford School of Public Policy at the University of Michigan. He also has a Masters of Science and Bachelors of Science in Mechanical Engineering from the University of Michigan.