

**Characteristics and Service
Use of Medicaid Buy-In
Participants with Higher
Incomes: A Descriptive
Analysis**

Final Report

May 31, 2013

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Kristin Andrews
Valerie Cheh



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Policy Research

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EXECUTIVE SUMMARY

Few employer-sponsored and private insurance plans offer the broad range of services that many workers with disabilities need and that may help them find or maintain employment. Furthermore, many moderate- and high-income workers with disabilities are ineligible due to income and asset limits for public health insurance programs like Medicare and Medicaid. This group will remain ineligible for Medicaid even as the Affordable Care Act (ACA) expands coverage to certain individuals with incomes up to 133 percent of the federal poverty level (FPL) in states that participate in Medicaid expansions.

For a subset of workers with disabilities who have moderate or high incomes, the Medicaid Buy-In program provides a pathway to critical Medicaid services. Medicaid Buy-In programs allow states to expand Medicaid coverage to workers with disabilities whose income would make them ineligible for traditional Medicaid. Although Medicaid Buy-In programs have more flexible income requirements than traditional Medicaid, many states impose income and/or asset limitations that render the program inaccessible to some workers with disabilities. Furthermore, there are a few states without Buy-In programs. If providing access to disability-specific services can keep these individuals employed, there could be financial benefits to government agencies and other benefits to workers with disabilities.

Learning more about Medicaid Buy-In participants who have high incomes relative to other participants (defined as incomes above 250 percent FPL) may help policymakers increase their understanding of the role that disability-specific health services play in contributing to successful employment outcomes. To strengthen this knowledge, the Centers for Medicare & Medicaid Services (CMS) asked Mathematica Policy Research to conduct a targeted study of participants in the Medicaid Buy-In program. Specifically, this descriptive study addressed two key questions: What are the characteristics of Medicaid Buy-In participants with higher incomes relative to other participants with lower incomes? What are these participants' service-utilization patterns and how do they compare to similar groups with lower incomes?

To answer the study questions, we combined data from several sources to build a unique database not otherwise available. These data sources included Medicaid Buy-In data, which allowed us to identify those with incomes above 250 percent of the federal poverty level, along with some of their demographic characteristics and their sources of insurance coverage, and Medicaid claims data, which allowed us to identify the services used. Our analyses of demographic characteristics and insurance coverage were based on information from over 4,000 higher-income Buy-In participants. Because of various limitations affecting access to data, our analysis of service use was based on a much smaller sample (74 individuals) and should therefore be interpreted with caution.

The study found that Buy-In participants with higher incomes were different from their lower-income peers across many dimensions, including insurance coverage and service use. Specifically, it yielded three main results:

- Higher-income participants were less likely to be enrolled in Medicare and more likely to be enrolled in third-party insurance than those with lower incomes.

- Service use among higher-income Buy-In participants was concentrated on several service types. Prescription drugs were the most frequently used type of service by participants with incomes above 250 percent FPL, followed by durable medical equipment.
- Medicaid expenditures for a selected set of services among higher-income participants were generally less than expenditures for the same services among all Buy-In participants. Average per-member-per-month (PMPM) expenditures for those with incomes above 250 percent FPL were \$392, compared with \$814 among all Buy-In participants.

Based on the services we examined, overall, higher-income Buy-In participants appear to have lower Medicaid expenditures than lower-income Medicaid beneficiaries with disabilities. One of the implications of this finding is that if providing such services can keep higher-income workers with disabilities employed, there could be substantial savings for the federal government relative to alternate outcomes for beneficiaries. Specifically, if these health services were unavailable, some people with disabilities might be unable to work or might strategically cease work in order to meet eligibility requirements for public insurance programs that cover needed services. Participants who stop or decrease work might qualify for Social Security Disability Insurance (SSDI) and/or Supplemental Security Income (SSI), which provide cash benefits and, with a few exceptions, generally offer Medicare and Medicaid, respectively, to beneficiaries.¹ Compared with the 2011 average benefit of \$1,189 per SSDI beneficiary per month (SSA 2012) and/or the \$519 average monthly benefit for SSI (SSA 2013), plus associated Medicare and Medicaid costs, the cost of \$392 per month for the disability-specific services covered by the Buy-In is a less costly option for federal agencies.

This study has several important limitations. First, as noted above, our analyses of service use were based on a very small sample that may not be representative of all higher-income Buy-In participants or of the broader population of people with disabilities with incomes above 250 percent FPL. Consequently, the results on service use and costs must be interpreted with caution. Second, our analysis of expenditures for psychiatric and transportation services likely excluded a significant portion of expenditures for services provided under managed care plans. Finally, we did not capture the full cost of providing services to this population because we were unable to calculate Medicare spending, which was potentially relevant for almost two-thirds of our sample.

Despite these limitations, this study provides CMS and other policymakers with initial information that may help them understand the health care needs of workers with disabilities, particularly those who have higher incomes. Future studies will be needed to expand on these preliminary findings.

¹ Medicare is available to SSDI participants after a 24-month waiting period. Medicaid recipients automatically qualify for Medicaid in 32 states and Washington, D.C. Seven states require an additional application for Medicaid but use the same eligibility rules as SSI. The remaining 11 states require an application for Medicaid and use a separate set of eligibility criteria.

I. INTRODUCTION AND BACKGROUND

The Medicaid Buy-In program allows states to expand Medicaid coverage to workers with disabilities whose income and assets would ordinarily make them ineligible for Medicaid. To be eligible for the Buy-In program, an individual must have a disability,² have earned income, and meet other financial eligibility requirements established by states. Although eligibility criteria in some states require that income be below 250 percent FPL, other states enroll participants with higher incomes.

The Centers for Medicare & Medicaid Services (CMS) asked Mathematica Policy Research to conduct a study of participants in the Medicaid Buy-In program in order to increase the knowledge base on workers with disabilities who have high incomes compared to other workers with disabilities, defined as those with incomes above 250 percent FPL. The Buy-In participants represent a portion of workers with disabilities who may need services and supports in order to continue competitively paid employment. In this report, we seek to understand who they are and what kinds of services and supports they receive under Medicaid, which provides coverage for many benefits that are not available through other sources.

This analysis is important to help policymakers understand the needs of this population, for whom comprehensive health insurance may be unavailable or inaccessible. Few higher-income workers with disabilities qualify for public health insurance, because eligibility is tied to their incomes and assets. Eligibility for this group will not be broadened under the Patient Protection and Affordable Care Act (ACA). Furthermore, few private insurance plans cover disability-specific services covered by Medicaid. Private insurance offered through state-based Affordable Insurance Exchanges starting in 2014 (another provision of the ACA) are not mandated to cover such services.³ Accordingly, policymakers may wish to consider various approaches to providing access to coverage for higher-income people with disabilities who may need a mixed set of health, case management, and employment-related support services rarely used by people without disabilities.

Access to enhanced medical coverage for workers with disabilities is likely to have many benefits, including improved health outcomes; lower costs compared with the increased reliance on public medical benefits, cash benefits, and forgone tax revenue when workers exit the labor market and receive SSA disability benefits; and the sense of independence and other social and emotional benefits associated with employment. This rationale for offering enhanced coverage

² Buy-In programs accept a person's enrollment in Social Security Administration (SSA) disability programs as a confirmation of a disability determination. For those not receiving SSA disability benefits, Buy-In programs use a definition of disability similar to the SSA definition: a physical or mental impairment that has lasted or is expected to last for at least 12 consecutive months or to result in death. The SSA definition also requires that beneficiaries be unable to engage in any substantial gainful activity.

³ Insurance plans available through such exchanges must offer a minimum standard of coverage, defined by the provision of essential health benefits. Essential benefits include ambulatory patient services; emergency services; hospitalization; maternity and newborn care; mental health and substance use disorder services, including behavioral health treatment; prescription drugs; rehabilitative services and devices; laboratory services; preventive and wellness services; chronic disease management; and pediatric services, including oral and vision care.

to this group of workers was supported, in part, by the Demonstration to Maintain Independence and Employment (DMIE), a CMS grant initiative that ended in 2009. The DMIE provided medical coverage equivalent to the state's standard Medicaid benefit package or "wraparound" coverage for services not covered under existing public, private, or employer-sponsored plans, as well as other supports to workers with potentially disabling conditions who were not receiving SSA disability benefits at the time of program enrollment. In some states, the provision of such benefits led to a statistically significant improvement in health-related outcomes; in others, it contributed to a significant reduction in the number of individuals receiving federal disability benefits one year after enrollment in the program (Whalen et al. 2012).

Examining the characteristics and service use of higher-income Buy-In participants, defined as those earning more than 250 percent FPL, provides us with a unique opportunity to learn about workers with disabilities who receive disability-related services and supports. It is rare to be able to identify and have access to service utilization and expenditure data for higher-income people with disabilities. Under a contract with CMS, researchers at Mathematica were granted access to Buy-In administrative records that were used for both means.

We begin the report by providing a description of the data and methods used to identify and describe our sample of higher-income workers with disabilities. Next, we describe the demographic and health-related characteristics of our sample and describe their sources of health insurance coverage, and then we examine their use of health care services. Finally, we draw conclusions from this analysis and discuss policy implications.

II. DATA AND METHODS

In this section, we describe the data sources and methods used to conduct a descriptive analysis of higher-income workers with disabilities. After discussing the process for identifying a sample of people with higher incomes, we describe the distribution of sample members across states and by income subgroups.

A. Data

We used several data sources to conduct our analyses. We used administrative data on Medicaid Buy-In participants, known as the Medicaid Buy-In finder files, to identify higher-income Buy-In participants. Information on Medicaid service use and expenditures and health insurance coverage was taken from Medicaid eligibility and claims data contained in BetaMAX. We describe both data sources in turn.

1. Medicaid Buy-In Administrative Data

The Medicaid Buy-In finder files are data files submitted by states that include monthly data for all Medicaid Buy-In participants. Data elements include personal identifiers, months of Buy-In enrollment, demographic information, Medicare enrollment, third-party insurance, and, for 2011 only, income as a percentage of federal poverty level (FPL). Finder files were collected annually by CMS from all states with both a Medicaid Buy-In program and a Medicaid Infrastructure Grant.⁴ Data quality was reviewed by Mathematica and errors were resolved with each state. Files cover the period of program inception through December 2011.

Unfortunately, several limitations exist regarding the availability and accuracy of the variable containing information on income as a percentage of FPL. It was not submitted or unavailable for 15 of the 35 states with finder files. In 8 of the 20 states that submitted the variable, no participants were recorded to have incomes over 250 percent FPL; however, several of the 8 states with no recorded higher-income earners did allow participants to have incomes over 250 percent FPL.

The consistency of data on income relative to FPL across states was also a concern. States used different methods of counting income for the purposes of Buy-In program eligibility. Although, for the finder files, states were instructed to report total household income as a percentage of FPL, not all states followed these parameters. Of the 12 states in which we identified higher-income participants (see below), four reported using the SSI income-counting methodology⁵ for finder file reporting purposes, whereas four reported total income relative to FPL without disregards or exclusions; information on income-counting methodology was not available for the remaining four states (Appendix Table A.1). As a result, for some states, total income as a percentage of FPL was undercounted in the finder files, and some individuals with

⁴ In 2011, 38 states had Medicaid Buy-In programs and received a Medicaid Infrastructure Grant. Of those states, 35 provided Buy-In data (Kehn, forthcoming).

⁵ The monthly SSI income-counting methodology includes a \$20 general income disregard, a \$65 disregard on earnings, and a disregard of 50 percent on all remaining income. Work-related expenses are also excluded.

higher incomes may have been excluded from our sample. However, those identified in our sample are likely to have had incomes at least as high as reported in the finder files. In addition, some states reported individual income as a percentage of FPL, whereas other states reported household income as a percentage of FPL. Because very few of the higher-income Buy-In participants for whom data are available were married,⁶ household and individual income are likely to be identical for most participants.

Despite the limitations of the finder file variable with information on income as a percentage of FPL, those identified with these data as having incomes above 250 percent are likely to truly have higher incomes. Although some higher-income participants may have been excluded, this would only affect the sample size and not the validity of the sample. Given the limited time frame for completing this study and limitations of alternative data sources, we consider the finder files to be the best source of information on income relative to FPL.⁷

2. Medicaid Claims Files: BetaMAX

BetaMAX, which is extracted from the Medicaid Statistical Information System (MSIS) and organized into person-level records, provides information on service utilization paid for by state Medicaid programs for Buy-In participants. BetaMAX is an early-release version of Medicaid Analytic eXtract (MAX) files, which combine initial claims, interim claims, voids, and adjustments into a final record. To allow for claims adjustments, and given the time required to create the data, there is a lag between the release of MSIS files and the subsequent release of MAX files; BetaMAX files are released in the interim.

BetaMAX files are generally of lower quality and completeness relative to MAX, but are still reliable sources of information. In contrast to MAX, which is produced using seven quarters of data, BetaMAX production requires only four to five quarters of data. Accordingly, BetaMAX may exclude records submitted after the initial data submissions, such as corrections and retroactive reporting of enrollees. Also, BetaMAX production relies on the previous year's MAX production software and does not account for any new data issues. Finally, BetaMAX files do not undergo as rigorous a validation process as MAX files. Still, an analysis of the 2009 files revealed that, on average, BetaMAX and MAX data differed by 2 percent or less on most measures of enrollment, expenditures, and service utilization (Borck et al. 2012).

⁶ Finder file data on marital status were missing for 88 percent of those with moderate and high incomes in our sample. Many states were missing data on marital status for all participants. In states for which data were missing for 10 percent or less of our sample of those with incomes above 250 percent FPL, just 9 percent of sample members were married.

⁷ An alternate method to identify Buy-In participants with moderate and high incomes is based on the Master Earning File (MEF). The MEF contains information on annual earnings as reported to the Internal Revenue Service. However, FPL is calculated based on household size and total household income, both of which are unavailable from our data sources. Further, MEF data do not include information on unearned income and may underreport total income (the sum of earned and unearned income). In addition to these limitations, because of data access issues, this approach would have been time intensive and was unlikely to be completed within the timeframe for this report, so we did not pursue it.

B. Identifying Buy-In Participants with Income Above 250 Percent FPL

Using data from the 2011 Buy-In finder files, we identified 4,137 Buy-In participants with incomes above 250 percent FPL (\$27,225 annually for a household of one) in 12 states (Table II.1).^{8,9} In half of the states, these higher-income participants accounted for less than 1 percent of all 2011 participants. Across all 12 states, the percentage of those with incomes above 250 percent FPL ranged from a low of 0.04 percent in Louisiana (representing just one participant) to a high of almost 23 percent in Massachusetts (3,473 participants). In terms of the income of its participants, Massachusetts has an atypical Buy-In program; in Minnesota, the state with the second highest proportion of higher-income participants, only 6 percent of participants had incomes above 250 percent FPL.

Table II.1. 2011 Buy-In Participants with Income Above 250 Percent of FPL

State	Enrolled in 12/2011	Number Above 250% FPL	Percent Above 250% FPL
Indiana	4,742	22	0.5
Iowa	15,153	44	0.3
Louisiana	2,343	1	0.0
Maryland	767	36	4.7
Massachusetts	15,174	3,445	22.7
Minnesota	8,121	488	6.0
New Hampshire	2,031	46	2.3
New Jersey	6,161	19	0.3
New Mexico	1,052	7	0.7
Vermont	664	19	2.9
Washington	1,555	3	0.2
Wyoming	224	7	3.1

Source: 2011 Buy-In finder files.

Note: States for which there were no participants with income above 250 percent FPL are not shown in this table. These include Alaska, Arkansas, Kansas, New York, North Dakota, Oregon, Pennsylvania, and South Dakota.

States have some flexibility to tailor Medicaid Buy-In program eligibility criteria, including income and asset limits, to suit program goals. State income and asset limits are highly correlated with the number of people with higher incomes enrolled in each state's program. Most significantly, the program income limit varies widely across states, ranging from a low of around 225 percent of FPL to no income limit in Massachusetts (which also requires participants to work a minimum of 40 hours per month) and Minnesota. Not surprisingly, these latter two states had the highest prevalence and percentage of enrollees with incomes above 250 percent FPL (Table II.1). In addition, higher program asset limits may encourage and allow those with higher income potential to apply. Massachusetts does not place any asset limits on program participants, whereas Minnesota imposes an asset limit of \$20,000 (excluding spousal resources),

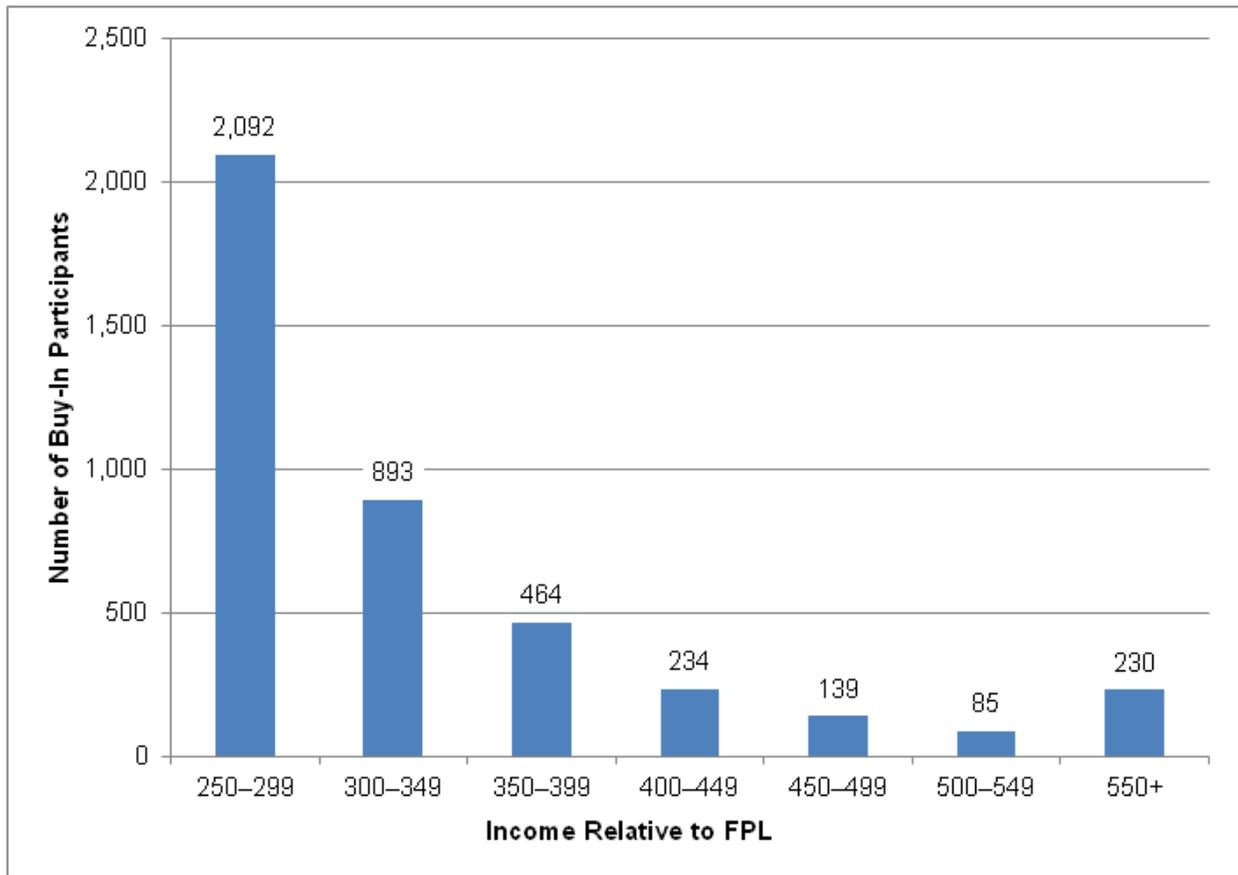
⁸ Poverty guidelines are based on household size and total household income. Alaska and Hawaii use higher household incomes for their poverty threshold.

⁹ We excluded 90 Buy-In participants in Iowa who were recorded to have incomes equal to 998 or 999 percent FPL. A contact at the Iowa state Medicaid office explained that codes of 998 or 999 indicate eligibility for two special Medicaid categories, both of which require income below 134 percent FPL.

the ninth most generous asset limit among the 35 Medicaid Buy-In states for which we have finder files.

The majority of 2011 higher-income Buy-In participants (2,092 of 4,137) had incomes between 250 and 299 percent FPL (\$27,225 to \$32,670 for a household of one; Figure II.1). The number of Buy-In participants generally decreased as income relative to FPL increased. Only 688 higher-income participants (17 percent) had incomes above 400 percent FPL (\$43,560 for a household of one) and just 315 (less than 8 percent) had incomes above 500 percent FPL (\$54,450 for a household of one). A very small subset of about two dozen Buy-In participants had incomes over 950 percent FPL (\$103,455 for a household of one); nearly all of these participants resided in Massachusetts.

Figure II.1. Distribution of 2011 Buy-In Participants by Income Relative to FPL



Source: 2011 Buy-In finder files.

For subsequent analyses, sample members were divided into two income categories: 250 to 399 percent FPL and over 400 percent FPL. These income categories allowed for a comparison between those with higher incomes, as characteristics and service use behavior may differ between the two groups. The categories were divided at 400 percent FPL because this is the threshold below which federal subsidies for health insurance will be available under the ACA.

C. Linking Administrative Buy-In Data to Medicaid Claims Data

Limitations in available data combined with the limited time frame for completing this study led us to analyze 2010 claims data to identify service use and expenditures for 2011 higher-income Buy-In participants in the six states with sufficient data. As mentioned above, income relative to FPL was a new element in the 2011 finder files and was unavailable for 2010. The most recent BetaMAX files for states with people with higher incomes available in time for use in this report covered the period through the end of 2010. Even 2010 data were only available for 6 of the 12 states with higher-income participants: Indiana, Iowa, Louisiana, New Mexico, Vermont, and Wyoming. Exactly 100 higher-income participants were identified in those six states, of whom 85 were identified in the 2010 BetaMAX files based on MSIS ID or Social Security number. Because we identified higher-income participants using 2011 data, we also required participation in the Buy-In program in 2010, the year in which services were analyzed. Our final sample included 74 people (Table II.2).

Table II.2. 2011 Higher-Income Buy-In Participants Linked to BetaMAX 2010

State	Number of 2011 Participants with Income \geq 250 FPL	2011 Higher-Income Participants Linked to BetaMAX 2010 Claims Files Who Were 2010 Buy-In Participants
Indiana	22	16
Iowa	44	32
Louisiana	1	1
New Mexico	7	6
Vermont	19	14
Wyoming	7	5
Total	100	74

Source: 2011 Buy-In finder files and 2010 BetaMAX.

We cannot verify that those with higher incomes in 2011 also had higher incomes in 2010. It is possible that some people in our sample may have had incomes below 250 percent FPL in 2010, whereas others may have had even higher incomes. According to previous research, approximately 40 percent of a sample of Buy-In participants increased their earnings over a three-year time period, with an average increase of about \$3,000 (Liu and Weathers 2007; statistic adjusted for inflation). Given the two-year time period in our analysis over which earnings may have changed, we expect that a lower proportion increased their earnings. Further, the average earnings increase over a three-year period is small relative to the minimum income threshold for inclusion in our sample, which was \$27,225 annually for a one-person household.

The samples included in subsequent analyses varied based on data source. Analyses of demographic characteristics and health insurance, which did not require BetaMAX, included the full sample of 4,137 higher-income participants in all 12 states. Analyses of service use and expenditures included the final sample of 74 higher-income participants in 6 states.

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III. CHARACTERISTICS OF HIGHER-INCOME BUY-IN PARTICIPANTS

In this chapter, we describe the demographic characteristics and sources of health insurance coverage among higher-income Buy-In participants. These analyses used Buy-In administrative data and included all identified participants with incomes above 250 percent FPL.

A. Demographic Characteristics

We begin our analysis of higher-income workers with disabilities by describing their demographic characteristics. Who are higher-income Buy-In participants? How do they compare with lower-income participants? The answers to these questions may provide insight into the breadth of the Buy-In program and may help policymakers develop and target new programs.

The higher-income Buy-In participants were middle aged (on average 51 years old), almost evenly split between males and females (49 percent female), and mostly white (87 percent) (Table III.1). The demographic characteristics of those with incomes above 250 percent FPL and those with incomes less than 250 percent of the FPL were similar. Those with higher incomes were slightly older (51 versus 48 years old), less likely to be female (49 percent versus 51 percent), and more likely to be white (87 percent versus 84 percent). Data on race were missing for nearly half of higher-income participants, which makes us cautious about comparisons based on race. Data on marital status were missing for 88 percent of higher-income participants, including all participants in 7 of the 12 states examined. Accordingly, we do not present or discuss results based on marital status.

The highest-income group, those with incomes above 400 percent FPL, had different characteristics than other higher-income participants and low-income participants. The minority of the highest income group were female (43 percent) and almost all were white (91 percent). In comparison, 51 percent of Buy-In participants with incomes below 250 percent FPL were female and 84 percent were white. The differences are even starker when compared with a cohort of working-age Medicaid enrollees with disabilities, of whom 55 percent were female and 72 percent were white, according to a previous study (Schimmel et al. 2007).

Table III.1. Demographic Characteristics of 2011 Buy-In Participants in States with Higher-Income Participants

Group	Number of 2011 Participants	Average Age as of 1/1/11 (years)	Female (%)	White (%)
All states, income < 250% FPL	53,111	48	51	84
All states, income ≥ 250% FPL	4,137	51	49	87
All states, income between 250% and 399% FPL	3,449	51	50	86
All states, income ≥ 400% FPL	688	48	43	91
Indiana, ≥ 250% FPL	22	53	45	86
Iowa, ≥ 250% FPL	44	53	39	100
Louisiana, ≥ 250% FPL	1	60	0	100
Maryland, ≥ 250% FPL	36	48	47	64
Massachusetts, ≥ 250% FPL	3,445	51	49	85
Minnesota, ≥ 250% FPL	488	48	44	96
New Hampshire, ≥ 250% FPL	46	47	54	100
New Jersey, ≥ 250% FPL	19	47	53	84
New Mexico, ≥ 250% FPL	7	52	57	43
Vermont, ≥ 250% FPL	19	48	63	93
Washington, ≥ 250% FPL	3	40	33	67
Wyoming, ≥ 250% FPL	7	46	29	100

Source: 2011 Buy-In finder files.

Note: Race was missing for 21 percent of Buy-In participants with incomes below 250 percent FPL and for 45 percent of those with incomes greater than or equal to 250 percent FPL. Race was available for all participants with income above 250 percent FPL in Indiana, Louisiana, New Hampshire, New Jersey, New Mexico, Washington, and Wyoming; missing for 4 percent in Minnesota, 8 percent in Maryland, and 21 percent in Vermont; and missing for about half of higher-income participants in Iowa and Massachusetts.

B. Health Insurance Coverage

Several sources of health insurance are available to workers with disabilities, depending on their income, assets, and employment status, among other factors. Some may qualify for public health insurance, such as Medicare and Medicaid. Others may have coverage through private health insurance plans. An analysis of patterns of enrollment in health insurance may provide insight into the ways through which workers access the supports necessary to maintain employment.

Higher-income Medicaid Buy-In participants had fewer months of Buy-In coverage compared with low-income participants. Through 2011, the median lifetime length of Buy-In participation was 33 months for higher-income participants and 36 months for lower-income participants (Table III.2).¹⁰ Similarly, average months of Buy-In enrollment in both 2010 and 2011 were lower among those with higher incomes (not shown). This trend also applied within the sample of higher-income participants: those with incomes between 250 and 399 percent FPL had a higher median lifetime length of enrollment and higher average months of enrollment in

¹⁰ The data used for this report were available through December 2011, and length of enrollment is truncated as of that date. Presumably, some participants permanently exited the Buy-In program in 2011, whereas others continued to participate and accumulate a longer length of enrollment in 2012 and beyond, and still others joined the Buy-In as first-time participants after 2011.

2010 and 2011 than those with incomes above 400 percent FPL. Although the difference in length of enrollment is not substantial, it is consistent with the hypothesis that those with higher incomes are more likely to use the Buy-In program as a temporary source of insurance coverage, perhaps as they transition from public to private insurance. However, we do not have sufficient evidence to substantiate this conclusion with certainty.

Third-party insurance was most prevalent among Buy-In participants with higher incomes. Only 15 percent of those with incomes below 250 percent FPL had third-party insurance, compared with 21 percent of those with incomes between 250 and 400 percent FPL and 44 percent of those with incomes above 400 percent (Table III.2). This is not surprising, as availability of employer-sponsored insurance, the primary source of third-party insurance coverage, is positively correlated with income. This pattern is consistent with the hypothesis that some higher-income participants voluntarily disenrolled from the Buy-In program because their needs were met by employer-sponsored health insurance.

As income increased, enrollment in Medicare fell (Table III.2). Fewer than half of Buy-In participants with incomes above 400 percent FPL were enrolled in Medicare, compared with over two-thirds with incomes between 250 and 400 percent FPL. Both are lower than the rate among those with incomes below 250 percent FPL, of whom 78 percent were enrolled in Medicare. This pattern is likely related to the pathway to Medicare eligibility for nonelderly people with disabilities. People with disabilities who earn less than \$1,000 a month can qualify for Social Security Disability Insurance (SSDI) benefits and receive Medicare after a two-year waiting period.¹¹ Although higher-income Buy-In participants are unlikely to receive SSDI, some may remain eligible as *former* SSDI beneficiaries, who may continue to receive Medicare benefits for up to eight and a half years after returning to substantial employment.

¹¹ SSDI eligibility prohibits participants from engaging in substantial gainful activity, defined as having earnings above \$1,000 a month in 2011 (\$1,640 for blind beneficiaries). SSDI beneficiaries are allowed to test employment for a nine-month period, during which they can have an unlimited amount of earnings and still receive benefits. Following this nine-month trial work period, benefits are suspended or terminated if participants engage in substantial gainful activity.

Table III.2. Health Insurance Coverage of 2011 Buy-In Participants in States with Higher-Income Participants

Group	N of 2011 Participants	Median Lifetime Length of Buy-In Enrollment	Third-Party Insurance (%)	Enrolled in Medicare (%)
All states, income < 250% FPL	53,111	38.0	15	78
All states, income ≥ 250% FPL	4,137	33.0	25	64
All states, income between 250% and 399% FPL	3,449	33.0	21	68
All states, income ≥ 400% FPL	688	30.8	44	45
Indiana, ≥ 250% FPL	22	31.0	18	27
Iowa, ≥ 250% FPL	44	43.5	9	73
Louisiana, ≥ 250% FPL	1	13.0	0	100
Maryland, ≥ 250% FPL	36	23.5	8	72
Massachusetts, ≥ 250% FPL	3,445	31.0	25	63
Minnesota, ≥ 250% FPL	488	52.0	23	74
New Hampshire, ≥ 250% FPL	46	45.0	67	26
New Jersey, ≥ 250% FPL	19	54.0	58	79
New Mexico, ≥ 250% FPL	7	85.0	14	57
Vermont, ≥ 250% FPL	19	46.0	53	95
Washington, ≥ 250% FPL	3	35.0	0	100
Wyoming, ≥ 250% FPL	7	18.0	14	43

Source: 2011 Buy-In finder files.

Notes: Third-party insurance coverage and Medicare enrollment data were missing for 1 percent of Buy-In participants with incomes below 250 percent FPL and for 3 percent of those with incomes greater than or equal to 250 percent FPL. All missing observations were from Massachusetts.

IV. SERVICE USE AND EXPENDITURES

To improve our understanding of the use of disability-specific services among higher-income workers with disabilities, we analyzed claims data for Medicaid Buy-In participants with incomes above 250 percent FPL across a number of dimensions. Specifically, we focused on the following services: pharmacy; personal care assistance; home health; nursing facility services; durable medical equipment; psychiatric services; transportation; targeted case management; rehabilitation; physical therapy, occupational therapy, speech therapy, and hearing services; and nurse practitioner services or private duty nursing.¹² For each type of service, we estimated total and per-member-per-month (PMPM) Medicaid expenditures for those covered under a fee-for-service arrangement, as well as service use for all Buy-In participants. We also estimated third-party expenditures and home and community-based services (HCBS) use and expenditures. This information will help CMS and other policymakers understand the service needs of higher-income workers, which, in turn, will help inform efforts to design or modify programs that address the needs of this population.

We reported Buy-In service use and expenditures relative to Buy-In member-months, which were calculated as the sum of months enrolled in the program in 2010 across our sample of higher-income participants who linked to BetaMAX 2010. The number of Buy-In member-months varied across services because, in some states, some services were not covered by Buy-In programs or were only covered for participants covered by HCBS waivers.¹³ For states without waiver participants in our sample, we considered those services to be unavailable. For example, in Wyoming, which had no HCBS participants in our sample, personal care services were only available for those covered by developmental disabilities or acquired brain injury waivers; thus, member-months for higher-income participants in Wyoming were not included in aggregate PMPM calculations for personal care. For the expenditures analysis, we also calculated the number or fee-for-service member months (months during which participants were not enrolled in a managed care plan type that covered the service). Fee-for-service member-months also varied across services because participation in managed care varied by service type.

Analyses for service use and expenditures include 2011 Buy-In participants with higher incomes who were also enrolled in the Buy-In in 2010 and linked to BetaMAX 2010. The results include all months in 2010 in which sample members participated in the Buy-In program. Of the 74 participants who met these criteria, 53 were enrolled for the entire year and 21 were enrolled for part of the year (for an average of six months).

¹² Residential care services were not included in our analysis, as they were not known to be covered by any of the state Buy-In programs analyzed.

¹³ Information on Buy-In coverage in Louisiana was based on the Buy-In program's member guide in that state (Louisiana Department of Health and Hospitals 2009). Buy-In programs in Indiana, Iowa, New Mexico, and Wyoming covered the same or similar services as those covered under Medicaid for the categorically needy (Wyoming did not cover long-term care). Information on program coverage for those states was collected from the Kaiser Family Foundation website (2010). According to our sources, home health care was not covered in Wyoming, yet there were service claims during Buy-In months. Given the claims and lack of documentation specific to the Buy-In program in that state, we assumed for our purposes that home health care was covered in Wyoming. We could not find information on services covered under Vermont's Buy-In program and made no exclusions for that state.

A. Service Use

Fee-for-service and managed care claims were combined in Table IV.1 to provide information on overall rates of service use. The fee-for-service claims are considered to be of good quality, whereas, for the purposes of this study, managed care encounter data are generally less reliable, because payment was not linked to reporting under such arrangements. However, managed care encounter data quality is reasonably good for most plans in the states included in this analysis (Byrd 2013; Nysenbaum et al. 2012).¹⁴ Furthermore, the trends found in Table IV.1 held when fee-for-service and managed care claims were examined independently.

During 2010, Buy-In participants with incomes above 250 percent FPL made an average of 2.3 claims per member-month across all services examined, including pharmacy; durable medical equipment; psychiatric services; home health; long term care; transportation; physical, occupational, or speech therapy; nurse practitioner services or private duty nursing; personal care assistance; and rehabilitation (Table IV.1). No claims for case management were reported.

Prescription drugs were the most commonly used type of service among higher-income Buy-In participants. One or more claims were reported in approximately one-third of member months, with an average of over one claim per member-month (Table IV.1). The most common claims were for drugs to treat panic disorders and anxiety, drugs to lower cholesterol and triglycerides, and pain relievers (not shown). Durable medical equipment was the second most commonly used service, with claims reported in about one-fifth (21 percent) of member-months. On average, about three claims for durable medical equipment were reported for every four member-months. The most common durable medical equipment claims were for reoccurring needs, such as incontinence, respiratory, and diabetes management supplies (not shown). Higher-income participants made claims for home health, psychiatric services, or nursing facility services in less than 8 percent of member-months, with an average of one to two claims for every 10 member-months. Claims for other services were even rarer.

A preliminary analysis of service use across income tiers suggests that, although the total number of claims was similar across the two income groups, use of specific services varied by income. The highest-income Buy-In participants (those with incomes of 400 percent FPL or more) were more likely to use pharmacy and durable medical equipment and less likely to use psychiatric and nursing facility services, compared with those with incomes between 250 and 399 percent FPL (Table IV.1). However, these differences should be interpreted cautiously, as the sample includes only nine people with incomes above 400 percent FPL.

¹⁴ New Mexico's encounter data on comprehensive managed care are consistently reported, but data quality has not been comprehensively assessed. New Mexico also reports encounter claims for all behavioral health plans, but some reporting anomalies have been detected. Iowa reports encounter data for all behavioral health plans, and these data have been determined to be of good quality and complete enough for analysis. Information was not available on the quality of encounters reported for Iowa's transportation plan or New Mexico's long-term care plan. Some participants in Indiana, Vermont, Louisiana, and Wyoming were enrolled in primary care case management plans, which do not typically generate encounter claims, but were not enrolled in any other managed care plan types.

Table IV.1. Service Use Claims Among All Buy-In Member-Months in States with Higher-Income Participants, CY 2010

Service Measure	All Services Examined	Pharmacy		Durable Medical Equipment		Home Health		Psychiatric Services		Nursing Facility Services	
	Avg. Claims per Member-Month	Percent Member-Months with Claim	Avg. Claims per Member-Month	Percent Member-Months with Claim	Avg. Claims per Member-Month	Percent Member-Months with Claim	Avg. Claims per Member-Month	Percent Member-Months with Claim	Avg. Claims per Member-Month	Percent Member-Months with Claim	Avg. Claims per Member-Month
All states, income \geq 250% FPL (N = 74)	2.34	34.4%	1.10	21.2%	0.72	4.5%	0.21	7.4%	0.14	4.3%	0.07
All states, income between 250% and 399% FPL (N = 65)	2.33	31.9%	1.09	18.5%	0.71	2.9%	0.21	8.1%	0.15	4.5%	0.08
All states, income \geq 400% FPL (N = 9)	2.37	55.6%	1.21	43.2%	0.86	19.3%	0.19	1.2%	0.01	0.0%	0.00
Indiana, \geq 250% FPL (N = 16)	4.76	80.9%	3.05	27.6%	0.73	3.3%	0.68	2.6%	0.03	15.8%	0.27
Iowa, \geq 250% FPL (N = 32)	1.51	16.8%	0.38	21.8%	1.03	3.2%	0.04	4.1%	0.04	0.0%	0.00
New Mexico, \geq 250% FPL (N = 6)	1.76	23.5%	1.71	2.9%	0.00	0.0%	0.00	1.5%	0.01	0.0%	0.00
Vermont, \geq 250% FPL (N = 14)	1.63	31.4%	0.64	9.6%	0.12	n.a.	n.a.	23.7%	0.54	n.a.	n.a.
Wyoming, \geq 250% FPL (N = 5)	2.51	38.6%	0.53	63.6%	1.59	25.0%	0.25	0.0%	0.00	n.a.	n.a.
Buy-In member-months among participants in all states		761		761		605		761		561	

Table IV.1 (continued)

Service Measure	Transportation		Therapy		Nursing		Personal Care		Rehabilitation		Case Management	
	Percent Member -Months with Claim	Avg. Claims per Member -Month	Percent Member -Months with Claim	Avg. Claims per Member -Month	Percent Member -Months with Claim	Avg. Claims per Member -Month	Percent Member -Months with Claim	Avg. Claims per Member -Month	Percent Member -Months with Claim	Avg. Claims per Member -Month	Percent Member -Months with Claim	Avg. Claims per Member -Month
All states, income \geq 250% FPL (N = 74)	1.2%	0.05	0.7%	0.02	0.8%	0.01	0.4%	0.01	0.3%	0.00	0.0%	0.00
All states, income between 250% and 399% FPL (N = 65)	1.2%	0.05	0.7%	0.03	0.6%	0.01	0.5%	0.01	0.3%	0.00	0.0%	0.00
All states, income \geq 400% FPL (N = 9)	1.2%	0.05	0.0%	0.00	2.5%	0.04	0.0%	0.00	0.0%	0.00	0.0%	0.00
Indiana, \geq 250% FPL (N = 16)	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
Iowa, \geq 250% FPL (N = 32)	0.3%	0.01	0.3%	0.00	1.2%	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00
New Mexico, \geq 250% FPL (N = 6)	0.0%	0.00	0.0%	0.00	2.9%	0.04	0.0%	0.00	0.0%	0.00	0.0%	0.00
Vermont, \geq 250% FPL (N = 14)	4.5%	0.17	2.6%	0.12	0.0%	0.00	1.9%	0.04	0.0%	0.00	n.a.	n.a.
Wyoming, \geq 250% FPL (N = 5)	2.3%	0.09	0.0%	0.00	0.0%	0.00	n.a.	n.a.	4.5%	0.05	0.0%	0.00
Buy-In member-months among participants in all states	761		761		761		717		761		605	

Source: 2011 Buy-In finder files and 2010 BetaMAX.

Note: The table does not show results for Louisiana, which had only one full-year Buy-In participant, who had no service use in any category examined. In Vermont, home health, nursing facility services, and case management services were not covered under the state's Buy-In program. In Wyoming, nursing facility services and personal care services were not covered.

n.a. = not applicable

B. Fee-for-Service Expenditures

Because expenditures on services covered by managed care plans are not included in claims data, including BetaMAX, we estimated expenditures only for individuals covered by fee-for-service arrangements. For most services, only a small percentage of our sample were covered by managed care plans. Higher-income participants had managed care coverage for pharmacy, durable medical equipment, nursing, home health, case management, rehabilitation, therapy, nursing facility services, and case management for 5 percent of member-months or less.¹⁵ Personal care services were not covered by managed care plans in any of the states included in this analysis. However, about 26 percent and 51 percent of Buy-In member months were covered by managed care plans for transportation and behavioral health, respectively. For those services, fee-for-service expenditures will exclude a significant portion of the total costs.

Fee-for-service expenditures for care received by participants in our sample totaled nearly \$238,000, or \$392 PMPM (Table IV.2). PMPM expenditures, calculated by dividing total expenditures by the number of Buy-In fee-for-service member-months, indicate the expense of the service per enrolled Buy-In participant per month enrolled. With the exception of nursing facility services, expenditures generally followed the same pattern as service use. The highest expenditures were for nursing facilities, averaging \$206 PMPM. However, all expenses were incurred by just two participants. Pharmacy, the most frequently used type of service, accounted for the second highest level of expenditures, averaging \$77 PMPM. Durable medical equipment was a very close third, with \$75 PMPM, followed by home health, with PMPM expenditures averaging \$15. PMPM expenditures on psychiatric services and transportation were relatively low, averaging \$11 and \$3 PMPM, respectively. However, recall that about one-quarter to one-half of member-months were covered under managed care for these services, so the full costs are not reflected in fee-for-service expenditures. Expenditures for the remaining services, all of which were used in less than 2 percent of fee-for-service member-months, averaged less than \$4 PMPM.

Total PMPM expenditures were slightly lower for sample members with the highest incomes relative to those with incomes between 250 and 399 percent FPL. The majority of PMPM expenditures for those in the highest income category were for pharmacy (\$235), whereas the highest spending category for those with incomes between 250 and 399 percent FPL was for nursing facility services (\$207). However, as noted previously, the results for those with the highest incomes should be interpreted with caution, as they are based on only nine participants.

¹⁵ Participants were enrolled in comprehensive managed care plans, such as HMOs, for 3 percent of member-months. All participants enrolled in comprehensive managed care plans were in New Mexico, which covered pharmacy, durable medical equipment, nursing, home health, case management, rehabilitation, and therapy (CMS 2011). Transportation is also covered for those with comprehensive managed care plans in New Mexico, but is grouped separately.

Table IV.2. PMPM Service Expenditures in States with Higher-Income Participants: Fee-for-Service Member-Months, CY 2010

Service Measure	All Services Examined	Nursing Facility Services	Pharmacy	Durable Medical Equipment	Home Health	Psychiatric Services	Personal Care	Transportation	Rehabilitation	Therapy	Nursing	Case Management
Buy-In fee-for-service member-months among participants in all states		521	736	736	580	372	717	565	736	736	736	580
All states, income \geq 250% FPL (N = 74)	392	206	77	75	15	11	4	3	0	0	0	0
All states, income between 250% and 399% FPL (N = 65)	388	217	61	74	14	13	5	3	0	0	0	0
All states, income \geq 400% FPL (N = 9)	345	0	235	84	19	0	0	6	0	0	0	0
Indiana, \geq 250% FPL (N = 16)	1,034	705	230	49	46	4	0	0	0	0	0	0
Iowa, \geq 250% FPL (N = 32)	104	0	14	88	2	0	0	1	0	0	0	0
New Mexico, \geq 250% FPL (N = 6)	0	0	0	0	0	0	0	0	0	0	0	0
Vermont, \geq 250% FPL (N = 14)	206	n.a.	93	7	n.a.	23	20	9	0	2	0	n.a.
Wyoming, \geq 250% FPL (N = 5)	479	n.a.	65	382	19	0	n.a.	10	3	0	0	0
All 2005 Buy-In states, all participants	814	117	490	0	14	73	61	7	21	0	4	25

Source: PMPM expenditures for all Buy-In states are from Gimm et al. (2008) and the authors' calculations. All other statistics are based on 2011 Buy-In finder files and 2010 BetaMAX.

Notes: The table does not show results for Louisiana, which had only one full-year Buy-In participant, who had no service use in any category examined. In Vermont, home health, nursing facility services, and case management services were not covered under the state's Buy-In program. In Wyoming, nursing facility services and personal care services were not covered. All amounts are presented in 2010 dollars.

n.a. = not applicable

Total PMPM Medicaid expenditures were lower among higher-income participants compared with PMPM Medicaid expenditures by all Buy-In participants, according to a report of service use among 2005 Buy-In participants (Gimm et al. 2008).¹⁶ The inflation-adjusted average PMPM spending among all Buy-In participants for the disability-specific services examined in this report was \$814, over twice the total expenditures of those with incomes above 250 percent FPL (\$392).¹⁷ This trend applied to all services except nursing facility services and durable medical equipment; PMPM spending on home health was approximately the same for both groups.

C. Third-Party Expenditures

In addition to participation in the Buy-In, some higher-income participants were also enrolled in third-party insurance, including employer-sponsored coverage and individually purchased coverage. Members of our sample were covered by third-party insurance for 17 percent of member-months. Third-party coverage was even more prevalent among those with the highest incomes; Buy-In participants with incomes over 400 percent FPL had third-party coverage for 27 percent of member-months.

Third-party insurance expenditures were concentrated on three services: pharmacy, durable medical equipment, and psychiatric services (Table IV.3). The majority of third-party expenditures were for pharmaceutical services, with an average charge of \$29 PMPM of third-party insurance coverage. The remaining expenditures were for durable medical equipment (\$13 PMPM) and psychiatric services (\$6 PMPM). In total, third-party insurance covered \$48 PMPM for member-months enrolled in third-party coverage. However, these results should be considered preliminary because of the small sample.

Findings on third-party expenditures should also be interpreted cautiously due to methods related to data collection. As the payer of last resort, Medicaid collects information on third-party payers to calculate the payment owed to providers. However, there may be variation in data on third-party insurance expenditures across states (CMS 2013b). Some states require providers to collect third-party insurance payments before claims are adjudicated for Medicaid payment, whereas other states may pay providers for the entire charge and collect third-party payments themselves. In the former case, expenditures are often reported with a lag and may not be complete for states for which only a few quarters of data are used when compiling BetaMAX. Of the six states included in analyses of service use, data for all but one were based on six or seven quarters of data, which is a sufficient time period to collect information on third-party liabilities. The exception is Vermont, for which BetaMAX was based on just five quarters of

¹⁶ PMPM expenditures were calculated as total 2005 expenditures from Table F.5 in Gimm et al. (2008) divided by the total number of participants (100,290) times the average length of Medicaid coverage (10.5 months). Expenditures were adjusted and presented as 2010 dollars.

¹⁷ Although the comparison figure was adjusted for inflation (see previous footnote), it does not account for potential changes in the population of Buy-In participants over time. Also, \$814 is the average amount of expenditures for all Buy-In participants. Because the estimate includes higher-income participants, it is a lower bound for expenditures of lower-income participants.

data for all services studied in this report except for long-term care (which was based on six quarters).

Table IV.3. PMPM Third-Party Insurance Expenditures in States with Higher-Income Participants: Member-Months Covered by Third-Party Insurance, CY 2010

Service Measure	All Services Examined	Pharmacy	Durable Medical Equipment	Psychiatric Services	All Other Services
All states, income \geq 250% FPL (N = 74)	48	29	13	6	0
All states, income between 250% and 399% FPL (N = 65)	56	35	15	7	0
All states, income \geq 400% FPL (N = 9)	4	0	4	0	0
Indiana, \geq 250% FPL (N = 16)	229	153	76	0	0
Iowa, \geq 250% FPL (N = 32)	0	0	0	0	0
New Mexico, \geq 250% FPL (N = 6)	0	0	0	0	0
Vermont, \geq 250% FPL (N = 14)	24	8	0	16	0

Source: 2011 Buy-In finder files and 2010 BetaMAX.

Note: Participants in our sample were covered by third-party insurance for 130 member-months. The table does not show results for Louisiana and Wyoming, neither of which had participants with third-party insurance coverage. "All Other Services" includes nursing facility services, home health, personal care, rehabilitation, nursing, transportation, case management, and physical, speech, and occupational therapy.

D. HCBS Enrollment, Service Use, and Expenditures

Long-term care services and supports provided to people with disabilities in home or community settings are known collectively as home and community-based services (HCBS). These services can include a combination of medical and nonmedical services and are designed to assist with various functions related to living and working in the home or community setting. Services may include case management, homemaker, home health aide, personal care, adult day health services, habilitation (both day and residential), respite care, or other services defined by the state (CMS 2013a). Most often, states provide Medicaid HCBS through a Medicaid HCBS waiver that gives the state the authority to provide these services to a defined (and targeted) group of Medicaid enrollees, such as adults with acquired brain injury. States have the flexibility to tailor HCBS waiver services to meet the needs of their target population.

In 2010, very few higher-income Buy-In enrollees were also enrolled in an HCBS waiver: participants had HCBS waiver enrollment in just 16 member-months, or about 2 percent of all Buy-In member-months (Table IV.4). Indiana and Iowa were the only states with participants with HCBS waiver coverage. Furthermore, claims for HCBS were only reported in four of those months, and all of those claims were reported by Iowa participants. HCBS expenditures totaled \$408, or \$26 per-member per-month of HCBS coverage, and all claims were for durable medical equipment.

Table IV.4. HCBS Coverage and Use in States with Higher-Income Participants, CY 2010

	Buy-In Member-Months Covered by HCBS Waiver (%)	% of HCBS Buy-In Member-Months with Claims	PMPM HCBS Expenditures (\$)
All states, income \geq 250% FPL (N = 74)	2.1	25.0	26
All states, income between 250% and 399% FPL (N = 65)	2.4	25.0	26
All states, income \geq 400% FPL (N = 9)	0.0	0.0	0
Indiana, \geq 250% FPL (N = 16)	7.9	0.0	0
Iowa, \geq 250% FPL (N = 32)	1.2	100.0	102

Source: 2011 Buy-In finder files and 2010 BetaMAX.

Note: The table does not show results for Louisiana, New Mexico, Vermont, or Wyoming, which did not have any HCBS waiver coverage or service use reported for higher-income Buy-In enrollees in CY 2010.

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V. CONCLUSION

The network of health insurance options is often insufficient to meet the needs of many higher-income workers with disabilities. The Medicaid Buy-In program can be a welcome exception. It is an important pathway to services and supports for approximately 200,000 working people with disabilities. However, not all states have Buy-In programs, and most states' programs have limits on how much income a beneficiary can earn in order to enroll in the program and maintain eligibility. If providing such services to higher-income workers with disabilities can support health outcomes and support employment, there could be substantial benefits for both the beneficiary and public programs.

By examining Buy-In participants with higher incomes (above 250 percent FPL), we are able to better understand the characteristics and service use patterns of this population. Learning more about workers with higher incomes may help policymakers improve their understanding of the role disability-specific services and supports play in contributing to successful employment outcomes. This study illustrates that higher-income Buy-In participants were different from their lower-income peers across many dimensions, including insurance coverage and service use. Three specific findings are noteworthy.

First, higher-income participants were less likely to be enrolled in Medicare than those with lower incomes. One explanation for this is that higher-income participants were less likely to meet the income-eligibility criteria that would allow people with disabilities to qualify for Medicare. This study also found that at the highest levels of income, Buy-In participants more frequently were enrolled in third-party insurance. This could suggest that those with the highest incomes had greater access to employer-sponsored insurance and chose to enroll in it when available, using the Medicaid Buy-In program as supplemental coverage to employer-sponsored insurance and possibly further shortening the period of time during which they relied on public health benefits.

Second, this study found that service use among higher-income Buy-In participants was concentrated in several service types. Consistent with the incidence of mental illness, prescription drugs—which are often prescribed to manage mental illness—were the most frequently used type of service by participants with incomes above 250 percent FPL. Durable medical equipment was the second most frequently used type of service among this group, with average expenditures of \$75 PMPM. In contrast, spending on durable medical equipment by all Buy-In participants was less than \$1 PMPM (Gimm et al. 2008).¹⁸

Finally, total expenditures by higher-income participants for the disability-specific services we examined were lower than spending by all Buy-In participants, the majority of whom had low

¹⁸ PMPM expenditures were calculated as total 2005 expenditures from Table F.5 in Gimm et al. (2008) divided by the total number of participants (100,290) times the average length of Medicaid coverage (10.5 months). Expenditures were adjusted and presented as 2010 dollars.

incomes. The average PMPM Medicaid expenditures for those with incomes above 250 percent FPL were \$392 PMPM compared with \$814 PMPM among all Buy-In participants.¹⁹

Compared with people with disabilities with lower or no incomes, higher-income Buy-In participants are a distinct group with distinct needs. They have characteristics that are unusual for Medicaid enrollees and relatively low expenditures for a select group of services examined in this report. If providing such services can keep these individuals employed, there could be substantial savings relative to alternate outcomes. Specifically, if these health services were unavailable, some participants might be unable to work and would then qualify for public assistance programs for people with disabilities, including SSDI. Others might strategically suppress or cease work to enroll in SSDI, which, in addition to cash benefits, offers Medicare to its beneficiaries (after a two-year waiting period). Compared with the 2011 average benefit of \$1,189 per beneficiary per month for SSDI (SSA 2012), the cost of \$392 per month for the disability-specific services covered by the Buy-In is an affordable option.

This report has several limitations. First, our analyses of service use were based on a small sample of 74 Buy-In participants in six states. Therefore, without further study, the results are not generalizable to all higher-income Buy-In participants in all states and should be interpreted with caution. Second, there were likely many people with incomes above 250 percent FPL who did not participate in a Buy-In program by choice, lack of awareness, ineligibility, or lack of availability. The sample studied in this report may not be representative of the service use or needs of the larger population of workers with disabilities. Third, our analysis of expenditures of psychiatric and transportation services likely excluded a significant portion of expenditures for services provided under managed care plans. Finally, we did not capture the full cost of providing services to this population, as we did not calculate Medicare spending, which was potentially relevant for almost two-thirds of our sample. For those with both Medicaid and Medicare, Medicare is generally the primary payer for many of the services we examined, including pharmacy, home health, nursing facility services, durable medical equipment, psychiatric services, rehabilitation, physical therapy, occupational therapy, speech therapy, hearing services, and nurse practitioner services.

Future research addressing the limitations in this report will provide an additional contribution to the knowledge base on higher-income workers with disabilities. For example, as BetaMAX data are released for additional states, the analyses of service use and expenditures in this study could be replicated for the over 4,000 higher-income participants identified for whom claims data were unavailable. In addition, an analysis incorporating Medicare data would provide a more comprehensive picture of service use and expenditures.

¹⁹ Although the comparison figure was adjusted for inflation (see previous footnote), it does not account for potential changes in the population of Buy-In participants over time. Also, \$814 is the average amount of expenditures for all Buy-In participants. Because the estimate includes higher-income participants, it is a lower bound for expenditures of lower-income participants.

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APPENDIX A
SUPPLEMENTARY MATERIAL

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Table A.1. State Methodology for Calculating Income as a Percentage of FPL

State	Are Any Income Disregards or Exclusions Applied?	How Frequently Is Income Re-evaluated?	Is Household or Individual Income as a Percentage of FPL Reported?	Is Documentation/ Verification of Income Required?
Indiana	NA	NA	NA	NA
Iowa	Yes—SSI methodology	Every 12 months or when income change is reported	Household	Yes
Louisiana	NA	NA	NA	NA
Maryland	Yes—SSI methodology	Every 6 months	Household	Yes
Massachusetts	NA	NA	NA	NA
Minnesota	No	Every 6 months or when income change is reported	Household	Yes
New Hampshire	NA	NA	NA	NA
New Jersey	No	NA	NA	NA
New Mexico	Yes—SSI methodology	NA	Individual	NA
Vermont	Yes—SSI methodology	Every 12 months or when income change is reported	Individual ^a	Yes
Washington	No	Every 12 months or when income change is reported	Individual	Yes
Wyoming	No	Every 12 months or when income change is reported or detected	Individual	Yes

Source: Email correspondence with state Medicaid staff, April–May 2013.

Note: The monthly SSI income-counting methodology includes a \$20 general income disregard, a \$65 earned income disregard, and a disregard of 50 percent of the remainder of income. Work-related expenses are also excluded.

^aHowever, if a spouse is present, spousal income is included (applying same disregards as for individuals) and income as a percentage of FPL is calculated using a two-person household.

NA = not available

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