



C.H.A.I.N 2012-4 REPORT

Employment and Economic Well-being Update

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Introduction

Antiretroviral therapy (ART) has dramatically reduced the HIV mortality rate and prolonged life for the CHAIN cohort and other HIV populations (Messeri, Chiasson, & Yim, 2012). Evidence is much more limited on the extent to which these medically effective treatments have improved the quality of life for people living with HIV (PLWH). This report addresses one dimension of quality of life: employment and economic well-being.

The previous CHAIN report (Messeri & Hart, 2007) on employment and economic well-being indicated that CHAIN cohort members were weakly attached to the labor force. Despite the widespread use of ART, the level of employment was slightly less than the level in the 1999 report on the original 1994 CHAIN cohort. The 2006 report also noted that one-third of both New York City (NYC) and Tri-County cohort members were unemployed but interested in returning to work, while more than one-third of NYC and Tri-County participants were not interested in working. At that time, the majority of CHAIN participants had experienced financial hardship, often lacking money for everyday expenses.

This report is an update to the 2006 report. We use the three most recent rounds of data¹ for both NYC and Tri-County to examine the associations of demographic, socioeconomic, and health factors with employment and with interest/disinterest in returning to work. To assess CHAIN participants' economic well-being, we examine poverty level, income, and financial hardships. The report also includes trend analysis of CHAIN participants' employment status, interest in returning to work, and poverty level using the seven rounds of data.

Key Findings

From the most recent round (2011-2013)

❖ Employment

- Similar to the previous CHAIN report findings, less than 1 in 7 NYC CHAIN cohort members and approximately 1 in 4 Tri-County CHAIN cohort members are currently employed (Table 4).
- A little over 1/5 of the NYC cohort and a little over 1/6 of the Tri-County cohort is unemployed but interested in returning to, or obtaining work (Table 4).
 - Financial needs and psychosocial rewards are the most frequently noted reasons for interest in work (Table 5).
- Over 60% of NYC and over 50% of Tri-County CHAIN participants are unemployed and not interested in work (Table 4).

¹ Round 5, 6, and 7, at the time this report was developed and data were analyzed.

- The most frequent reasons for lack of interest in work are poor health and lack of opportunities, job skills, or education (Table 6).
 - Fear of losing benefits and entitlements is less frequently mentioned as a reason for lack of interest in work (Table 6).
- ❖ Economic Well-being
- Over 70% of NYC and over 60% of Tri-County participants are living in poverty (Table 9).
 - Current employment is associated with higher income: the median income for those working part-time is between \$10,000 and \$15,000 and for those working full-time is between \$25,000 and \$35,000 (Table 8).
 - Over 80% of NYC and over 70% of Tri-County participants receive food stamps, and approximately 80% of NYC and 60% of Tri-County CHAIN cohort members receive rental subsidies (Tables 10 and 11).
 - The proportion of participants receiving food stamps and rental subsidies are substantially lower among those with full-time employment in NYC and those with any employment in Tri-County (Tables 10 and 11).
 - The majority of CHAIN participants report lacking money to pay for one or more of seven household expenses.
 - For NYC participants, funds are most frequently lacking (>20%) for recreation, clothing, food, and utilities, in that order. Over 25% of Tri-County participants lack money for above expenses and for rent (Tables 13 and 14).
 - Few individuals lack money for medical or dental care (Tables 13 and 14).
 - Tri-County participants report higher rates of financial hardship than NYC participants (Table 12).

Predictors of employment using three most recent rounds (2008-2013)

- As expected, receipt of SSI/SSDI is the strongest predictor of (un)employment. Better physical and mental health functioning predicts employment (Tables 15-20) for both NYC and Tri-County.
- A history of regular work consistently predicts employment more than other human capital variables (education, job training, history of problem substance use, and history of incarceration) (Tables 15-20).
- Problem substance use correlates with decreased employment rates by interfering with people's ability to accumulate employable skills, and by increasing the chance of incarceration. It also correlates with poorer health (Tables 15-20).

Over-Time Change (2001-2013)

- ❖ Employment
- For both NYC and Tri-County, employment does not show any secular trends over the seven rounds of interviews (Table 4).

- For both NYC and Tri-County, the percentage of unemployed participants interested in working has decreased over time (Table 4).
 - In NYC, good health has decreased over time as a reason for interest in work (Table 5).
 - In Tri-County, psychosocial rewards and financial needs have increased as reasons for interest in work (Table 5).
 - In Tri-County, poor health and lack of opportunities, job skills, or education have increased as reasons for lack of interest in work (Table 6).
 - In both NYC and Tri-County, being retired has become a more commonly reported reason for lack of interest in work (Table 6).
- ❖ Economic Well-being
 - Median annual household income for the CHAIN cohort is between \$7,500 and \$10,000 and has been so consistently since Round 1 (2002 for NYC and 2001 for Tri-County) (Table 8).
 - The only over-time change in median income is among full-time workers. Their median income has increased from between \$15,000 and \$25,000 to between \$25,000 and \$35,000 (Table 8).
 - Overall, receipt of food stamps and rental subsidies has increased over time (Tables 10 and 11).

Background

The introduction of ART has changed the face of HIV from a deadly disease to a more manageable chronic condition. This has led to an increased interest in the quality of life of PLWH. However, studies examining employment and economic well-being among PLWH have been scarce and have even decreased in recent years, despite that these are important dimensions of quality of life.

Studies conducted between 1996 and 2011 in the US have shown fairly consistent levels of unemployment among PLWH, between 60 and 70% (Fleishman, 1998; Brooks & Klosinski, 1999; Blalock, McDaniel, & Farmer, 2002; Brooks, Martin, Ortiz, & Veniegas, 2004; Razzano & Hamilton, 2005; USDOL, 2011). Given that the proportion of non-working adults has been between 39% and 47% in NYC (NYC Department of Health and Mental Hygiene, 2014) and between 33% and 44% in the US (Smith, Hout, & Marsden, 2013), the percentages of non-working PLWH have been disproportionately high.

Prior to the widespread use of ART, the higher unemployment rate was attributable to the nature of living with a terminal disease, which causes deteriorating health and employment loss, while also negating plans for retirement. However, in the context of effective treatments, unemployment among PLWH is less readily explained by diminished health or longevity. The National Working Positive Coalition (NWPC) study suggests that only 25-

30% of its non-working respondents reported that they are unable to work (USDOL, 2011), but 70-75% of PLWH who are able to work or “not unable” to work are out of the labor force. The NWPC study also reports that, among employed respondents, only 63% are employed full-time and about one in five PLWH who work full-time makes less than \$15,000 yearly. Moreover, this study shows that 63% of respondents were employed at the time of diagnosis but only 32% were employed at the time of the study, and less than one in three PLWH currently employed knows about “reasonable job accommodations.” This suggests avoidable loss of employment has occurred for formerly employed PLWH. It also suggest that there are barriers for non-working PLWH who seek to work. In addition, a shortage of government sponsored vocational or employment support services for PLWH may limit the proportion of healthy PLWH who are able to regain employment or remain in the labor force (USDOL, 2011).

Several studies have looked at barriers to finding work among PLWH. Other than health reasons, fear of losing benefits and entitlements has been the most frequently noted barrier (Martin, Brooks, Ortiz, & Veniegas, 2003; Martin, Steckart, & Arns, 2006; Brooks et al., 2004; Conyers, 2004; Conyers & Datti, 2008; Glenn, Ford, Moore, & Hollar, 2003; Rabkin, McElhiney, Ferrando, Gorp, & Lin, 2004; Hergenrather, Rhodes, & Clark, 2004; Hergenrather, Rhodes, & Clark, 2005; Hergenrather, Rhodes, & Clark, 2006). PLWH have also reported lack of skills and/or education (Hergenrather et al., 2004; Hergenrather et al., 2005; Hergenrather et al., 2006; USDOL, 2011; Martin et al., 2003; Martin et al., 2006b), lack of and inadequate job placement/search services (Timmons & Fesko, 2004; Hergenrather et al., 2004; Hergenrather et al., 2005; Hergenrather et al., 2006; Conyers & Datti, 2008; USDOL, 2011), lack of jobs with flexibility in hours (e.g., for taking medication and medical appointments) (Martin et al., 2003; Glenn et al., 2003; Hergenrather et al., 2004; Hergenrather et al., 2005; Hergenrather et al., 2006), and anticipated discrimination (Martin et al., 2003; Brooks et al., 2004; Conyers & Datti, 2008) as barriers to employment. On the other hand, factors that correlate with finding employment are job placement and search assistance (Jung & Bellini, 2011; Martin, Arns, Batterham, Afifi, & Steckart, 2006) and higher prior income (Martin et al., 2006a). Positive feedback on status disclosure (Glenn et al., 2003; Timmons & Fesko, 2004) and being on HAART (Goldman & Bao, 2004) are correlated with remaining in the work force.

Results from a handful of studies suggest that there are three broad areas other than demographic characteristics that correlate to PLWH employment status: health, socioeconomic status, and substance use. Better physical health, mental health, and HAART use were all positively correlated with employment (Burns, Young, & Maniss, 2006; Burns, Young, & Maniss, 2007; Martin et al., 2006a; Bernell & Shinogle, 2005; Razzano & Hamilton, 2005). Receipt of benefits and entitlements is negatively correlated with employment status (Bernell & Shinogle, 2005; Razzano & Hamilton, 2005), whereas having private insurance (Bernell & Shinogle, 2005) and having an advanced degree increase the

likelihood of employment among PLWH (Bernell & Shinogle, 2005; Martin et al., 2006a). Past and current substance use is negatively correlated with employment (Bernell & Shinogle, 2005; Martin et al., 2006a).

Although factors correlated with employment status and barriers to employment seem consistent across studies, many investigations suffered from methodological limitations, particularly around representativeness or generalizability. For example, the Burns et al. (2007) study used a sample including only Medicare and Medicaid recipients and excluded individuals who were unemployed and without disability payments. Rabkin et al. (2004) used a sample of gay, non-IV drug users, of whom 82%² were AIDS-diagnosed. Martin et al. (2006a) had problems with PLWH dropping out of a study due to having found employment, possibly impacting results. Moreover, very few longitudinal studies are found in the HIV and employment literature.

To our knowledge, this is the first study in the US and NYC to update trends for the post-2010 period. Using longitudinal data through 2013 on a representative sample of PLWH receiving HIV supportive services in NYC and Tri-County, we update the factors that correlate with employment, levels of employment, levels of and reasons for interest in work among non-working PLWH as well as the CHAIN respondents' current economic well-being, and levels of and reasons for interest in work.

Methods

Study Sample

Trends in employment and economic well-being are analyzed by pooling all 5,911 interviews (3,896 for NYC and 2,015 for Tri-County) completed with 1,869 CHAIN cohort members (1,012 for NYC and 857 for Tri-County) between 2001 and 2013. The analyses of factors associated with employment are restricted to data obtained from the interviews completed between 2008 and 2013. These include 1,774 interviews with 726 individuals for NYC and 730 interviews with 526 individuals for Tri-County.

Study Variables

Employment Measures: Table 1 lists the definitions for employment and economic well-being variables. The CHAIN study asks participants if they are currently working in a paid position, part-time or full-time (See Appendix for survey questions used in this report). Three categories of responses emerge: 1) regular full-time employment or working one or more jobs 35 hours or more per week; 2) regular part-time employment, irregular employment, or occasional work totaling less than 35 hours per week; and 3) unemployment, which is the category applied to all individuals without paid work. The

² The national percentage of PLWH with an AIDS diagnosis is about 42% (CDC 2010).

employed full-time and part-time/irregular categories are combined into a single working variable for the regression models described below.

Unemployed participants are asked whether they are thinking about or planning to get a job/go back to work and why. Open-ended responses are coded into one or more of the following categories: health (feeling better), psychosocial rewards (wanting to go back to occupation, feeling bored, seeking social meaning), financial need, desire to take opportunities for training or employment, and requirement to work for benefits. Similarly, the reasons for disinterest in work are coded into one or more of the following categories: health (not feeling well, not being sure about staying well), fear of losing benefits (medical or other entitlements), lack of opportunities, education or job skills, other priorities (needing to take care of someone, go to school, or go to drug treatment), and retirement.

To assess CHAIN participants' prior work experience, we ask at baseline whether they have ever been regularly employed for at least one year. At each round of interviews, participants are also asked whether they have received further education or job training since the previous interview (or during the past 12 months, for baseline interviews).

Economic Well-being Measures: Participants are asked whether they or anyone else in the household obtained money or financial support in the past six months, including money from regular job earnings, odd jobs, Social Security Disability Income (SSDI), Supplemental Security Income (SSI), and so forth (see Appendix for the complete list). Participants are also asked to select a range for their individual and household income during the previous calendar year. They are instructed to include income from all sources, including social welfare benefits, but to exclude non-income benefits like food stamps and rental subsidies.

As a further measure of economic well-being, the CHAIN respondents are asked, "How often has it happened in the last six months that there was not enough money in the household for rent, utilities, food, medical care, dental care,³ clothing, and recreational activities?" Possible responses are "never," "once in a while," "fairly often," and "very often." For this study, "once in a while," "fairly often" and "very often" are collapsed into a single category to indicate some financial hardship in the last six months. The number of items for which respondents report lacking money ranged from zero to six, excluding dental care (not asked in earlier rounds).

We conservatively estimate whether participants are living above or below the United States Census Poverty Threshold for the year, based on the upper bound of the reported income range, adjusted for the number of children and adults living in the household. For example, the poverty threshold of 2011 indicates that a three-person household with two children under 18 years is in poverty if annual income is less than \$18,123. Applying this

³ Dental care was added from Round 4 for NYC and Round 5 for Tri-County

rule, CHAIN participants whose household income is less than \$15,000 are categorized as living in poverty, and participants whose household income is in the next range (\$15,000 and \$24,999) or any higher range are categorized as not living in poverty.

Table 1. Definitions for Employment and Economic Well-Being Variables

Work and Economic Well-Being Measures	
Employment:	Currently Employed (full-time or part-time/irregular), Not Employed (not working or volunteer work)
Interested in Work:	Yes or No, if not currently working
Ever Worked FT for >1 Year:	Yes or No, at baseline
Household Income:	Annual household income of the previous year, including salaries, wages, and any benefits, including social security, welfare, gifts or any other income, not including food stamps or rental subsidies. <\$4,999; \$5000-\$7,499; \$7,500-\$9,999; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000-\$34,999; \$35,000-\$44,999; \$45,000-\$54,999; \$55,000-\$69,999; ≥\$70,000
Receipts of Food Stamps:	Yes, if respondent and/or a member of household received during the past 6 months
Receipts of Rental Subsidies:	Yes, if respondent and/or a member of household received during the past 6 months
Poverty:	Below or Above US Census Poverty Threshold calculated by household composition and household income, using the upper bound of each of the income ranges listed above
Insufficient Money for Everyday Expenses:	Never or Ever, for Rent, Utilities, Food, Medical Care, Dental Care, ⁴ Clothing, and Recreational Activities
Further Education or Job Training:	Yes or No, during the past 12 months for baseline ⁵ and since the last interview for follow-up interviews

Subgroup Variables: Table 2 lists the variables for subgroup analysis. Mental and physical health functioning are measured using the Medical Outcomes Study (MOS) SF-12v2 Mental Component Summary and Physical Component Summary (MCS, PCS; Ware et al., 2002). This study uses a slightly revised version of the breakdown used in the previous CHAIN report⁶ (2006-6) for descriptive analysis: MCS at or below 37 (out of 100), between 37 and 50, and 50 (the U.S. general population average) and above; PCS at or below 44 (out of

⁴ Dental Care was added from NYC Round 4 and Tri-County Round 5

⁵ Baseline interviews are: NYC Round 1, Round 5 Refresher, and Round 6 Refresher; and Tri-County Round 1, Round 3 Refresher, and Rounds 5, 6, and 7.

⁶ 2006-6 report used following categories: MCS below 37, between 37 and 50, and 50 and above; PCS below 44, between 44 and 55, and 55 and above.

100), between 44 and 55, and 55 and above. The score of 37 as a cut-off point for low mental health functioning is in accordance with the Medical Outcomes Trust guidelines. The original scores are used as a continuous measure in the multiple regression models.

History of problem substance use is defined as use of heroin, cocaine, and/or crack, or problem drinking. Problem substance use is categorized as current (past six months), former, or no history.

Table 2. Definitions for Study Subgroup Variables

Subgroups	
Self-Identified Gender	Male, Female, Transgender
Race/Ethnicity:	White, Black, Latino, Other
Age Group:	Ages 19-39, 40-49, 50+
Education:	Less than High School, High School Diploma/GED, More than High School
Problem Substance Use:	Never had a drinking problem or used crack/cocaine or heroin, Past problem drinking/use, Current problem drinking/use (in the past 6 months)
Mental Health:	(Using SF-12v2) MCS \leq 37, MCS $>$ 37 & MCS $<$ 50, MCS \geq 50
Physical Health:	(Using SF-12v2) PCS \leq 44, PCS $>$ 44 & PCS $<$ 55, PCS \geq 55
CD4 Count:	$<$ 200 cells/mm ³ , 200-349 cells/mm ³ , 350-499 cells/mm ³ , \geq 500 cells/mm ³
Recent Opportunistic Infection:	Had any of the following in the past 6 months preceding the interview: Candidiasis, Pneumocystis Carinii Pneumonia, recurrent Pneumonia, Kaposi's Sarcoma, Lymphoma, Wasting syndrome, Cytomegalovirus Retinitis, Cytomegalovirus Colitis, Mycobacterium Avium Complex, Herpes simplex (greater than 1 month's duration), recurrent Salmonella Septicemia, Progressive Multifocal Leukoencephalopathy, Cryptococcosis, Tuberculosis, Toxoplasmosis of brain, chronic intestinal Isosporiasis (greater than 1 month's duration), chronic intestinal Cryptosporidiosis (greater than 1 month's duration), Histoplasmosis
Year of HIV Diagnosis	$<$ 1991, 1991-1996, $>$ 1996
Taking HAART:	Yes, if taking ART in preferred, alternative or acceptable combination by DHHS guidelines
Ever Incarcerated:	Yes, if respondent has ever been incarcerated
Receiving SSI or SSDI:	Yes, if respondent received SSI or SSDI during the past 6 months

Individuals are categorized as taking HAART when their list of medications conforms to “preferred,” “alternative,” or “acceptable” by DHHS guidelines in effect at the time of the interview including salvage therapy for individuals who are treatment experienced. If the list of medications includes drugs that are indicated as “not recommended” or “should be

changed” by the DHHS guidelines, or the individual is not taking any ART, then this respondent is classified as “not taking HAART.” Ever-incarcerated is computed by combining the ever-incarcerated variable obtained at baseline and the incarcerated-past-6-months variable obtained at each follow-up round. Since we did not ask respondents if they have been incarcerated since the last interview, the proportion of those ever incarcerated is possibly underestimated.

Table 3 displays sample characteristics for individuals interviewed during the three most recent rounds (2008 – 2013 for NYC and Tri-County). Age, education, place of residence, and history of any continuous employment (for at least a year) are obtained from the individual’s first interview during this period. For variables that can change over time (job training or schooling, opportunistic infections, taking ART, ever incarcerated, receiving SSI or SSDI, housing stability, problem substance use, low mental health functioning, physical health functioning, and lowest CD4 counts), Table 3 displays the percentage of participants meeting definition of a particular category at any interview during the three most recent rounds.

Analysis

We fit a series of logistic regression models to obtain more precise estimates of the determinants of current employment. We estimate models that successively examine the effects of demographic factors (gender, race/ethnicity, uncategorized age), human capital (substance use history, level of education, receipt of further education or job training, history of incarceration), and health (uncategorized MCS and PCS, categorized CD4 count, recent opportunistic infections, ART status, year of HIV diagnosis). Substance use history and history of incarceration are entered individually into the equation in order to evaluate each variable’s effect on employment and on the overall model. We further examine the effects of disability payment in two ways. First, we include it as a final independent variable; and second, we run models in which we exclude individuals receiving SSI and SSDI from the analytical samples, based on the rationale that receipt of these payments indicates inability to work. The models excluding those receiving SSI and SSDI also exclude respondents who are over 70 years old.

Caution should be taken when interpreting over-time results, as NYC Rounds 5 and 6 and Tri-County Round 3 combine the ongoing cohort with newly recruited participants from the refresher sample. Furthermore, starting at Round 5 in 2008, Tri-County shifted to a repeated cross-section design with little overlap in respondents between each round (or between those later rounds and the cohort interviewed for Rounds 1-4 in Tri-County).

Table 3. Sample Characteristics

		NYC (2008-2013)	TC (2008-2013)
Total Number of Individuals		n=726	n=526
Age Group	<i>Ages 19-39</i>	12.5%	18.8%
	<i>Ages 40-49</i>	38.0%	34.8%
	<i>Ages 50+</i>	49.5%	46.4%
Gender	<i>Male</i>	56.9%	47.9%
	<i>Female</i>	41.2%	51.5%
	<i>Transgender</i>	1.9%	0.6%
Race/Ethnicity	<i>White</i>	8.8%	14.3%
	<i>Black</i>	54.7%	56.4%
	<i>Latino</i>	34.4%	26.0%
	<i>Other</i>	2.1%	3.3%
Problem Substance Use	<i>Never</i>	24.0%	40.1%
	<i>Past</i>	38.8%	35.4%
	<i>Current</i>	37.2%	24.5%
Education	<i>Less than High School</i>	40.8%	36.5%
	<i>High School Diploma/GED</i>	43.7%	44.8%
	<i>More than High School</i>	15.6%	18.7%
Ever Regularly Employed \geq1 Year at Baseline		75.7%	82.7%
Recent Job Training or Schooling		26.9%	14.3%
Ever Incarcerated		46.0%	43.5%
Mental Health	<i>MCS\leq37</i>	41.5%	36.8%
	<i>MCS$>$37 & MCS$<$50</i>	51.1%	50.5%
	<i>MCS\geq50</i>	7.4%	12.7%
Physical Health	<i>PCS\leq44</i>	66.0%	49.5%
	<i>PCS$>$44 & PCS$<$55</i>	26.3%	27.7%
	<i>PCS\geq55</i>	7.7%	22.8%
CD4 Count	<i><200</i>	30.0%	18.4%
	<i>200-349</i>	25.1%	22.2%
	<i>350-499</i>	21.4%	21.9%
	<i>\geq500</i>	23.6%	37.5%
Recent Opportunistic Infections		37.5%	23.8%
HIV Diagnosis Year	<i><1991</i>	24.0%	19.1%
	<i>1991-1996</i>	36.9%	28.5%
	<i>>1996</i>	39.1%	52.3%
Currently on ART		92.4%	83.3%
Receiving SSI/SSDI		68.7%	57.0%

Results

Employment

For both NYC and Tri-County, employment does not show any secular trends over the ten years of interview data (Table 4 and Figure 1). In NYC, the percentage of participants reporting any level of current employment (full-time, part-time, or irregular) has remained at low levels across all interviews. Current employment in NYC peaks at between 16% and 17% during Rounds 3 and 4 (2005-2008) and fluctuates in the 12% to 14% range at all other interviews. Employment in Tri-County (Table 4) is consistently higher than in New York City, with the rates of current employment generally fluctuating between 25% and 29%.

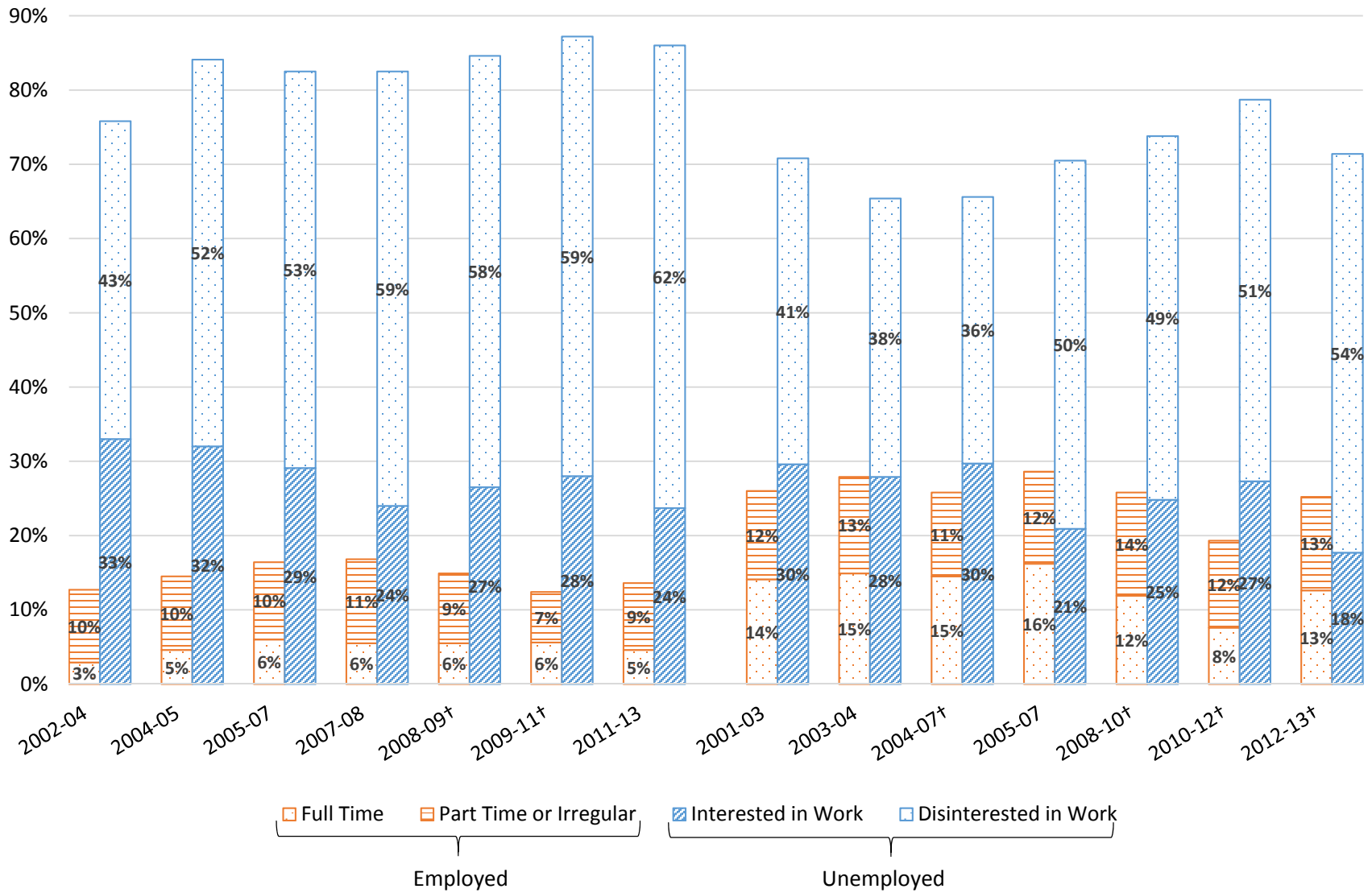
Table 4. Trends in Employment Status

Work Status	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
NYC	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09†</i>	<i>2009-11†</i>	<i>2011-13</i>
Total N	692	547	481	400	584	644	544
Currently Employed	12.7%	14.4%	16.4%	16.8%	14.9%	12.4%	13.6%
Full Time	2.9%	4.6%	6.0%	5.5%	5.5%	5.6%	4.6%
Part Time or Irregular	9.8%	9.9%	10.4%	11.3%	9.4%	6.8%	9.0%
Currently Unemployed#	87.3%	85.6%	83.6%	83.2%	85.1%	87.6%	86.4%
Interested in Work	33.0%	32.0%	29.1%*	24.0%***	26.5%***	28.0%***	23.7%***
Disinterested in Work	42.8%	52.1%	53.4%	58.5%	58.1%	59.2%	62.3%
TRI-COUNTY	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07†</i>	<i>2005-07</i>	<i>2008-10†</i>	<i>2010-12†</i>	<i>2012-13†</i>
Total N	396	315	337	234	302	249	175
Currently Employed	26.0%	27.9%	25.8%	28.6%	25.8%	19.3%*	25.1%
Full Time	14.1%	14.9%	14.5%	16.2%	11.9%	7.6%	12.6%
Part Time or Irregular	11.9%	13.0%	11.3%	12.4%	13.9%	11.7%	12.6%
Currently Unemployed#	74.0%	72.1%	74.2%	71.4%	74.2%	80.7%	74.9%
Interested in Work	29.6%	27.9%	29.7%	20.9%**	24.8%*	27.3%*	17.7%***
Disinterested in Work	41.2%	37.5%	35.9%	49.6%	49.0%	51.4%	53.7%

* $p < .05$, ** $p < .01$, *** $p < .001$, †These rounds include baseline interviews, #Include missing response for interest and disinterest in work (so the "Interested" and "Disinterested" percentages do not add up to the number)

Figure 1. Trends in Employment Status and Interest in Work
New York City

Tri-County



†These rounds include baseline interviews

Interest in Work among Unemployed: Among non-working NYC CHAIN participants, the percentage of those interested in working has decreased from 33% in 2002-2004 to 24% in 2011-2013. In Tri-County, the trend of interest in work among unemployed participants has also shown a general decline from about 30% during the first rounds of interviews to 18% in the most recent round (2012-2013).

Unemployed CHAIN participants most often cite financial needs (50% in NYC and 58% in Tri-County at most recent interviews; Table 5) and psychosocial rewards (50% in NYC and 61% in Tri-County; Table 5) as reasons for wanting to work. The most frequent reasons for lack of interest in work are poor health (77% in NYC and 90% in Tri-County at most recent interviews; Table 6) and lack of opportunities, job skills, or education (14% in NYC and 11% in Tri-County; Table 6). Fear of loss of benefits and entitlements is less frequently mentioned as a reason for not working (6% in NYC and 4% in Tri County; Table 6).

Table 5. Reasons for Interest in Work among the Unemployed Participants

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
NYC	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Good Health	18.9%	12.6%	10.7%	6.3%	9.0%	11.7%	7.8%
Psychosocial Rewards	54.8%	43.4%	53.6%	52.1%	56.1%	60.0%	50.4%
Work Requirement for Benefits	1.3%	0.0%	0.7%	1.4%	0.7%	0.6%	0.0%
Opportunity for Training/Employment	11.8%	10.9%	2.1%	7.3%	7.1%	6.7%	8.5%
Financial Needs	43.4%	43.4%	37.1%	58.3%	52.3%	42.8%	49.6%
TRI-COUNTY	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Good Health	11.1%	5.7%	3.0%	4.1%	8.0%	17.7%	6.5%
Psychosocial Rewards	17.1%	26.1%	14.9%	44.9%	57.3%	57.4%	61.3%
Work Requirement for Benefits	0.9%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Opportunity for Training/Employment	2.6%	5.7%	0.0%	4.1%	5.3%	4.4%	0.0%
Financial Needs	22.2%	35.2%	15.8%	36.7%	62.7%	58.8%	58.1%

Table 6. Reasons for Disinterest in Work among the Unemployed Participants

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
NYC	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Poor Health	69.3%	90.6%	86.4%	87.2%	86.1%	81.6%	76.7%
Fear of Losing Benefits/Entitlements	14.2%	10.8%	8.6%	9.8%	15.3%	11.8%	5.9%
Lack of Opportunities/Education/Job skills	11.8%	11.2%	12.8%	11.5%	12.1%	16.0%	14.2%
Other Priorities	18.2%	4.2%	1.6%	2.1%	5.0%	2.9%	1.8%
Being Retired	0.7%	3.9%	2.7%	3.9%	4.7%	5.0%	5.6%
TRI-COUNTY	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Poor Health	39.3%	67.8%	38.8%	77.6%	85.8%	85.2%	90.4%
Fear of Losing Benefits/Entitlements	2.5%	11.0%	5.0%	6.0%	19.6%	8.6%	4.3%
Lack of Opportunities/Education/Job skills	3.7%	5.9%	3.3%	1.7%	13.5%	18.8%	11.7%
Other Priorities	0.6%	0.9%	0.8%	20.7%	14.2%	6.3%	1.1%
Being Retired	0.0%	0.0%	0.0%	1.7%	6.8%	2.3%	8.5%

Factors influencing current employment

All Participants: Table 7 displays current employment rates by demographic, human capital, and health related factors from the three most recent rounds. However, the factors influencing current employment are better summarized in the results of the logistic regression models that pooled observations for the three most recent rounds of interviews (See Tables 15 to 20 in the Appendix).

The results for the entire cohort in Table 15 are similar to those in the earlier employment report (2006-6). In terms of demographic characteristics, current employment is higher for cohort members under 40 and for males. In turn, gender differences in employment are related to greater human capital and better health: specifically, higher rates of employment among those under 40 and for males appear to be due in large part to the better health of the youngest cohort members and the better health of the male participants, respectively.

Human capital variables are attributes, such as educational attainment, prior work experiences, and job training that affect one's ability to perform labor. Problem substance use and history of incarceration are negative human capital factors, as they are assumed to disrupt the accumulation of human capital. Models 3 through 6 (Table 15) show that a history of problem substance use decreases likelihood of employment through increase likelihood of incarceration and poor health.

Positive attributes, namely educational attainment, prior work experiences, and job training, are all associated with increased likelihood of current employment. At each of the three most recent rounds of interviews, crude rates of current employment generally increase with higher levels of positive human capital variables (Table 7). The effect of

further education or job training on employment weakens when history of incarceration and health status are entered in the model. Educational attainment and prior work experiences are also associated with better health. Adjustment for health differences diminishes, but does not eliminate, the association of education, prior work experience, and history of incarceration with current employment. Table 7 shows that job training is also associated with higher employment rates, but the regression analysis (Table 15) indicates that the better health of people in job training confounds this finding.

Poor health is a major barrier to employment. Higher physical and mental health functioning is correlated with increased likelihood of employment. Not surprisingly, SSI or SSDI recipients have extremely low rates of employment. Table 7 illustrates the striking differences in employment between the CHAIN members who are and are not receiving SSI or SSDI. Table 7 shows a general pattern of lower employment among individuals with markers of HIV disease progression (low CD4 counts and opportunistic infections). These variables are not statistically significant in the logistic regression model (Table 15), likely due to their association with the other health measures in the model (e.g., physical health functioning) that have a more direct impact on employment.

Participants not Receiving SSI or SSDI: To explore how human capital and health influence current employment among the 40% of CHAIN cohort members not receiving SSI/SSDI and who are under the age of 70, the logistic regression is re-estimated after removing SSI or SSDI recipients and participants over 70 years old (Table 16). The results are similar to those of models including the entire cohort. However, decreased likelihood of employment is observed for those receiving further education or job training, when SSI and SSDI recipients are removed (not statistically significant). This may reflect a selection bias if people finding it most difficult to secure work are more likely to be those who seek further education or job training. Another surprising result that emerges among people not on SSI/SSDI is that those who have been living with an HIV diagnosis prior to 1991 have higher rates of employment.

Results that Differed between NYC and Tri-County: To explore whether and how the determinants of employment differ between NYC and Tri-County, the logistic regression models are re-estimated separately for each regional cohort (Tables 17 through 20).

- As expected, employment is higher among individuals with better physical and mental health functioning, those with prior work experience, and those not receiving SSI/SSDI across both cohorts.
- Older age and education are much stronger predictors of employment among NYC than among Tri-County participants. Table 7 suggests that this difference may be related to very low rates of employment among NYC participants who did not complete high school.
- There is some evidence that ART use in Tri-County, but not in NYC, is associated with higher employment.

- Regional patterns are similar when model estimates are restricted to CHAIN members not receiving SSI or SSDI. In both regions, but particularly in NYC, among those not receiving SSI or SSDI, employment is highest among individuals who were diagnosed before 1991 compared to those diagnosed after 1991.

Table 7. Percentages of Employment in NYC and Tri-County 2008-2013 by Subgroup

	New York City			Tri-County		
	2008-09	2009-11	2011-13	2008-10	2010-12	2012-13
Age Group						
<i>Age 19-39</i>	28.8%	19.4%	9.4%	40.7%	22.0%	40.0%
<i>Age 40-49</i>	11.6%	11.8%	15.3%	26.3%	18.8%	34.8%
<i>Age 50+</i>	14.6%	11.5%	13.1%	19.2%	18.8%	17.3%
Gender						
<i>Female</i>	11.9%	12.0%	11.7%	26.0%	18.3%	18.0%
<i>Male</i>	17.1%	12.6%	14.9%	26.1%	20.8%	32.9%
<i>Transgender</i>	15.4%	16.7%	20.0%	0.0%	0.0%	0.0%
Race/ Ethnicity						
<i>White</i>	11.5%	13.8%	8.3%	22.2%	23.5%	25.9%
<i>Black</i>	17.0%	13.0%	16.3%	23.0%	19.0%	27.1%
<i>Latino</i>	12.3%	11.0%	10.5%	33.8%	18.6%	25.0%
Substance Use						
<i>Never</i>	21.4%	13.6%	15.3%	38.3%	26.3%	40.3%
<i>Past</i>	14.0%	13.8%	15.6%	24.8%	18.8%	15.7%
<i>Current</i>	11.5%	10.1%	10.6%	9.8%	12.3%	15.8%
Education						
<i>Less than High School</i>	8.9%	5.8%	7.5%	21.2%	13.7%	25.0%
<i>High School Diploma/GED</i>	16.0%	13.6%	14.0%	27.3%	18.5%	25.3%
<i>More than High School</i>	27.5%	26.0%	27.3%	32.2%	32.6%	25.8%
Ever Worked Year or More						
<i>No</i>	5.6%	6.5%	6.4%	9.6%	12.8%	3.3%
<i>Yes</i>	18.1%	14.3%	15.8%	29.2%	21.0%	30.0%
Recent Job Training or Education						
<i>No</i>	13.2%	10.5%	11.1%	22.8%	19.7%	21.7%
<i>Yes</i>	24.7%	22.2%	28.6%	45.7%	12.5%	55.6%
Ever Incarcerated						
<i>No</i>	18.1%	14.7%	14.0%	36.4%	22.8%	30.1%
<i>Yes</i>	12.2%	10.4%	14.2%	11.6%	16.0%	19.5%
Mental Health Functioning						
<i>MCS≤37</i>	12.7%	6.8%	12.5%	27.2%	13.9%	29.8%
<i>MCS>37 & MCS<50</i>	14.3%	15.4%	13.6%	27.5%	24.3%	23.1%
<i>MCS≥50</i>	19.6%	10.3%	14.8%	18.0%	11.8%	24.3%
Physical Health Functioning						
<i>PCS≤44</i>	7.7%	5.5%	8.4%	9.6%	13.3%	9.5%
<i>PCS>44 & PCS<55</i>	17.0%	15.6%	17.0%	27.8%	24.7%	31.6%
<i>PCS≥55</i>	32.3%	21.7%	22.1%	52.0%	23.7%	52.9%

Grey shaded cells are too small for reliable estimates of employment rates.

Table 7. Percentages of Employment in NYC and Tri-County 2008-2013 by Subgroup, Continued

	New York City			Tri-County		
	2008-09	2009-11	2011-13	2008-10	2010-12	2012-13
CD4 Counts						
<i>< 200 cells/mm</i>	10.1%	7.1%	9.0%	17.7%	21.7%	18.0%
<i>200-349 cells/mm</i>	20.8%	16.3%	14.2%	23.5%	13.5%	20.0%
<i>350-499 cells/mm</i>	16.5%	9.9%	15.4%	24.7%	13.2%	22.7%
<i>≥ 500 cells/mm</i>	13.0%	16.1%	16.8%	31.8%	26.5%	36.5%
Recent Opportunistic Infection						
<i>No</i>	16.8%	13.4%	15.2%	28.8%	18.3%	27.3%
<i>Yes</i>	9.9%	9.2%	7.3%	17.1%	23.1%	9.5%
Year of HIV Diagnosis						
<i><1991</i>	15.7%	14.0%	17.6%	20.6%	16.4%	15.6%
<i>1991-1996</i>	11.0%	11.3%	9.4%	16.1%	19.2%	10.9%
<i>>1996</i>	19.0%	12.9%	15.6%	35.0%	20.0%	35.4%
Currently Taking HAART						
<i>No</i>	14.3%	10.3%	16.5%	22.4%	22.0%	11.5%
<i>Yes</i>	15.1%	12.9%	13.1%	27.0%	18.8%	27.5%
Receiving SSI/SSDI						
<i>No</i>	26.3%	26.2%	26.3%	50.0%	39.1%	55.2%
<i>Yes</i>	7.8%	4.8%	7.0%	6.6%	7.6%	6.5%

Grey shaded cells are too small for reliable estimates of employment rates.

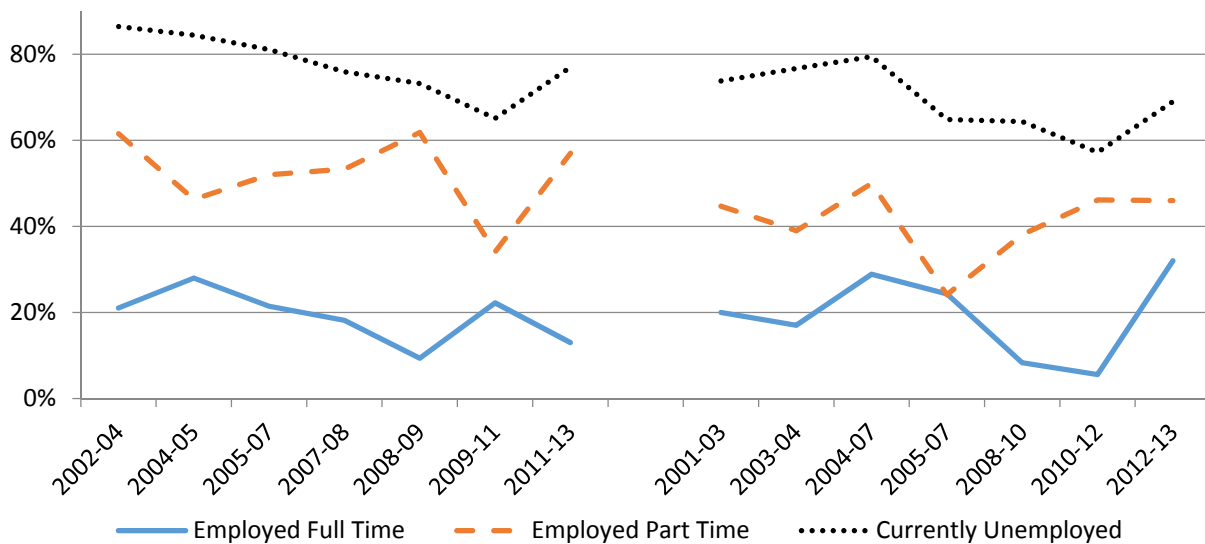
Poverty Level: Most CHAIN participants live on household incomes that are below the US Census poverty level. The proportion living under the poverty level is higher in NYC than in Tri-County (Table 9). However, the proportion of CHAIN participants living in poverty has decreased over time. In NYC, 82% are under the poverty threshold in the first round (2002-2004). At the sixth round of interviews (2009-2011), 61% are under the poverty threshold. In Tri-County, 63% are under the poverty threshold in the first round (2001-2003), compared to 52% at Round 6 (2010-2012) — although the proportion of the cohort living in poverty has increased in the most recent round of interviews. Wages from employment, particularly full time employment, have generally pushed income above the poverty level. Most evident in NYC (Table 10), part time employment is often not sufficient to generate income above the poverty level.

Table 9. Percent Living Under the Poverty Threshold by Employment Status

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
NYC	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Total	82.0%	78.1%*	74.5%***	70.2%***	68.6%***	60.5%***	72.2%***
Employed Full Time	21.1%	28.0%	21.4%	18.2%	9.4%	22.2%	13.0%
Employed Part Time	61.5%	46.3%	52.0%	53.3%	61.8%	34.1%	57.1%
Currently Unemployed	86.4%	84.4%	81.1%	75.9%	76.2%	65.1%	76.7%
TRI-COUNTY	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Total	62.8%	62.7%	69.2%*	53.3%**	53.7%*	51.8%***	61.3%
Employed Full Time	20.0%	17.0%	28.9%	24.3%	8.3%	5.6%	31.8%
Employed Part Time	44.7%	39.0%	50.0%	24.1%	38.1%	46.2%	45.5%
Currently Unemployed	73.8%	76.7%	79.4%	64.9%	64.4%	57.2%	69.0%

Grey shaded cells are too small for reliable estimates of proportions.

Figure 2. Trends in Poverty Level by Employment Status



New York City

Tri-County

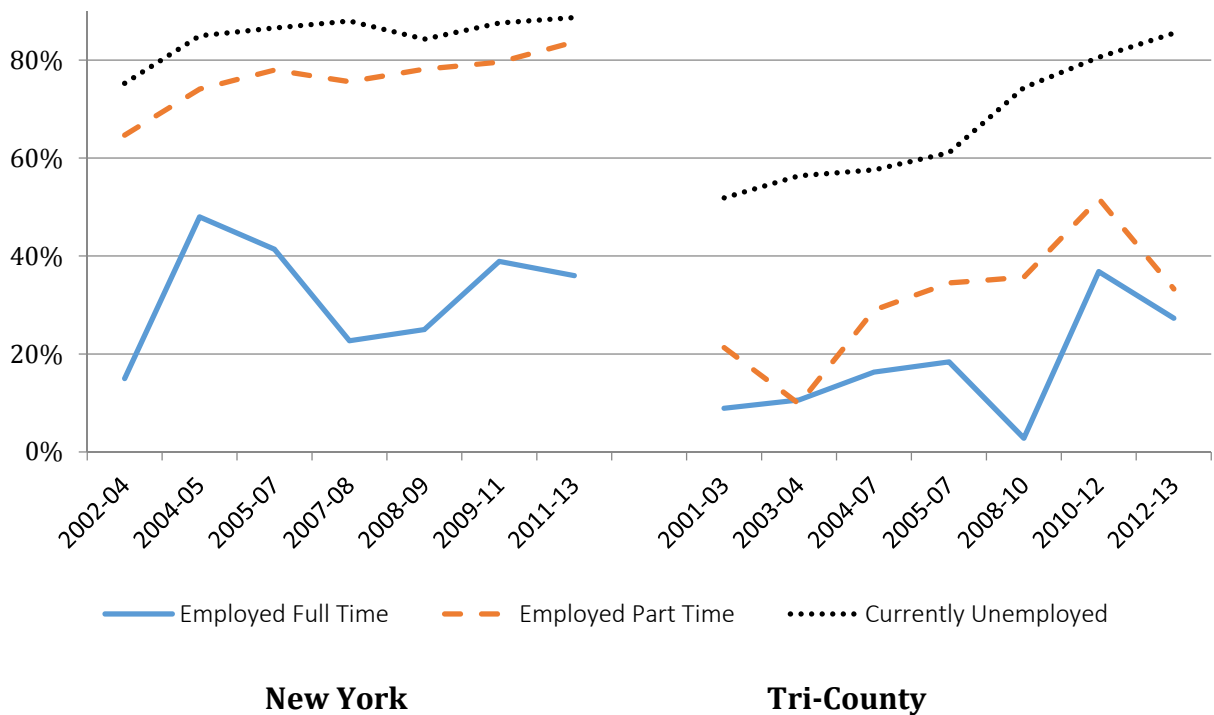
Food Subsidies: A majority of cohort members receive subsidies for the purchase of food (Table 10). At the most recent round of interviews, 86% of NYC participants and 72% of Tri-County participants report that their household has received subsidies to purchase food in the past six months. The proportion receiving food subsidies has been increasing in recent rounds of interviews, particularly in Tri-County (Table 10 and Figure 3).

Table 10. Percent Receiving Food Subsidies by Employment Status

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
NYC	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Total	72.6%	82.3%	83.0%	83.0%	80.5%	84.3%	85.9%
Employed Full Time	15.0%	48.0%	41.4%	22.7%	25.0%	38.9%	36.0%
Employed Part Time	64.7%	74.1%	78.0%	75.6%	78.2%	79.6%	83.7%
Currently Unemployed	75.3%	85.0%	86.6%	88.0%	84.3%	87.6%	88.7%
TRI-COUNTY	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Total	42.0%	43.5%	48.2%	50.9%	60.5%	73.9%	71.8%
Employed Full Time	8.9%	10.6%	16.3%	18.4%	2.8%	36.8%	27.3%
Employed Part Time	21.3%	9.8%	29.0%	34.5%	35.7%	51.7%	33.3%
Currently Unemployed	51.9%	56.4%	57.6%	61.1%	74.4%	80.6%	85.5%

Grey shaded cells are too small for reliable estimates of proportions.

Figure 3. Trends in Receipt of Food Stamps by Employment Status



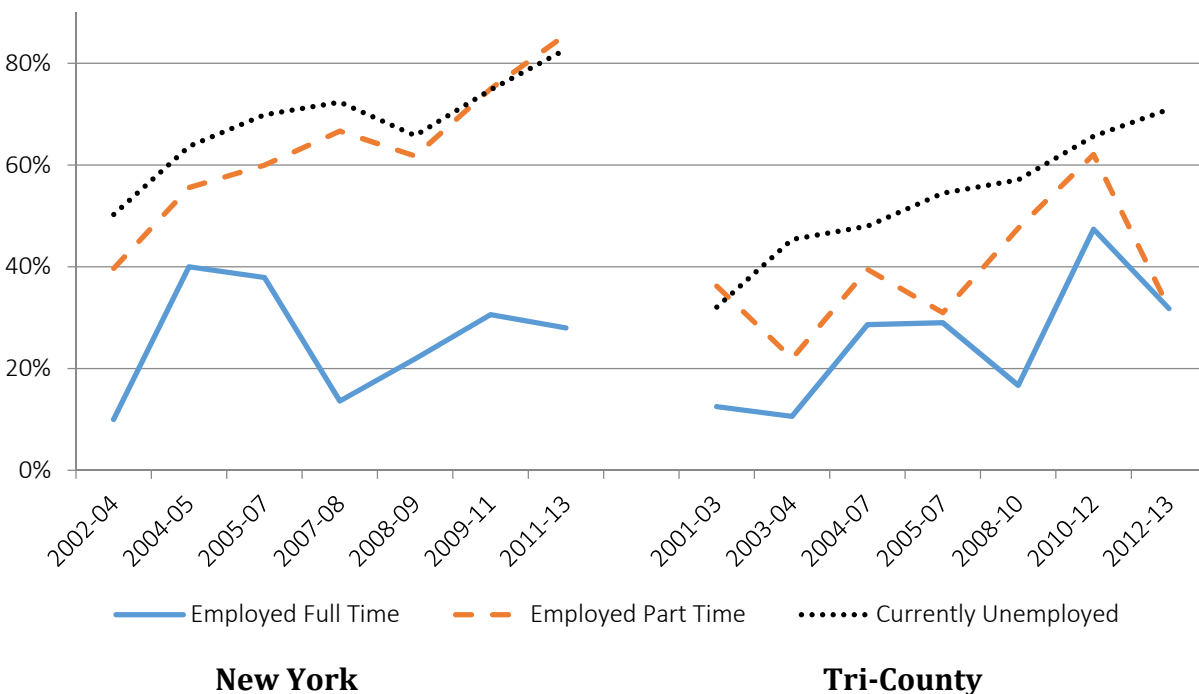
Rental Subsidies: The proportion of NYC participants receiving rental subsidies has increased from 48% at baseline interviews to 80% at Round 7 interviews (Table 10 and Figure 4). Rental subsidies are less common in Tri County, but they have also grown more common over time—with reporting of these subsidies doubling from 30% at baseline to 61% in Round 7. Full time employment is associated with lower proportions receiving rental subsidies, but even among the employed, the proportions with rental subsidies have increased over time.

Table 11. Percent Receiving Rental Subsidies by Employment Status

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
New York City	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Total	48.1%	61.7%	66.9%	68.5%	63.0%	72.4%	80.4%
Employed Full Time	10.0%	40.0%	37.9%	13.6%	21.9%	30.6%	28.0%
Employed Part Time	39.7%	55.6%	60.0%	66.7%	61.8%	75.0%	85.7%
Currently Unemployed	50.3%	63.7%	69.9%	72.4%	65.8%	74.8%	82.8%
Tri-County	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Total	29.7%	37.1%	44.1%	47.4%	51.0%	63.9%	61.1%
Employed Full Time	12.5%	10.6%	28.6%	29.0%	16.7%	47.4%	31.8%
Employed Part Time	36.2%	22.0%	39.5%	31.0%	47.6%	62.1%	31.8%
Currently Unemployed	32.1%	45.4%	48.0%	54.5%	57.1%	65.7%	71.0%

Grey shaded cells are too small for reliable estimates of proportions.

Figure 4. Trends in Receipt of Rental Subsidies by Employment Status



Insufficient Money for Everyday Expenses: In the most recent round of interviews, 63% of respondents in NYC and 78% of respondents in Tri-County report lacking money to pay for one or more of seven household expenses. Typically, individuals identify two areas in which they lacked money to pay for desired goods or services (Table 12). Money is most often lacking to pay for clothing and recreation, areas mentioned by 40% or more of the cohort (Table 13 and 14). Between a quarter and a third of the cohort also report lacking enough money to pay for food and utilities. Money is less often a problem to cover rent; nonetheless, 15% of NYC participants and 25% of Tri-County participants report lacking money to pay rent. In contrast, very few cohort members report lacking money for medical and dental care. Tri-County participants are consistently more likely than NYC participants to report lack of money across all types of everyday expenses. Employment does not seem to reduce economic hardships when it comes to everyday expenses. Employed individuals are no less likely than those not working to report lacking money across all types of everyday expenses.

Table 12. Mean Number of Household Expenses for Which Money was Insufficient During the Last 6 Months, by Employment Status

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
New York City	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Total	1.57 (1.7)	1.67 (1.7)	1.88 (1.7)	2.09 (1.7)	1.63 (1.7)	1.43 (1.6)	1.61 (1.6)
Employed Full-Time	1.95 (2.0)	1.08 (1.4)	1.38 (1.8)	1.45 (1.7)	2.03 (2.1)	1.17 (1.6)	1.56 (1.9)
Employed Part-Time	1.47 (1.8)	1.09 (1.5)	1.78 (1.8)	2.16 (1.7)	1.71 (1.9)	1.07 (1.7)	1.71 (1.8)
Unemployed	1.56 (1.7)	1.77 (1.7)	1.93 (1.6)	2.13 (1.7)	1.60 (1.6)	1.48 (1.6)	1.60 (1.6)
Tri-County	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Total	2.22 (1.8)	2.38 (1.7)	2.22 (1.9)	2.19 (1.8)	2.35 (1.8)	1.88 (1.7)	2.10 (1.6)
Employed Full-Time	1.68 (1.8)	2.04 (2.0)	1.92 (1.9)	2.11 (2.1)	2.19 (2.1)	2.42 (1.8)	2.45 (1.6)
Employed Part-Time	2.47 (1.8)	2.44 (1.9)	2.82 (1.7)	2.28 (1.8)	2.52 (2.0)	2.45 (1.9)	2.41 (1.9)
Unemployed	2.29 (1.8)	2.44 (1.7)	2.20 (1.9)	2.19 (1.7)	2.34 (1.8)	1.77 (1.6)	2.02 (1.6)

Ranges 0 to 6; not including dental care; Standard deviation is listed in parentheses

Table 13. Insufficient Money for Everyday Expenses during the Past 6 Months among NYC CHAIN Participants by Employment Status

NYC	Round 1 2002-04	Round 2 2004-05	Round 3 2005-07	Round 4 2007-08	Round 5 2008-09	Round 6 2009-11	Round 7 2011-13
Total							
Rent	22.8%	22.4%	22.9%	22.1%	17.5%	12.3%	14.6%
Utilities	28.2%	28.0%	32.4%	28.3%	26.5%	21.8%	23.7%
Food	32.1%	30.7%	30.8%	28.1%	24.8%	24.0%	27.0%
Medical Care	6.4%	5.1%	5.0%	5.0%	4.8%	3.1%	2.8%
Dental Care	--	--	--	4.5%	3.4%	2.0%	2.2%
Clothing	37.6%	41.7%	40.8%	63.2%	34.9%	34.6%	39.4%
Recreation	47.2%	50.7%	56.5%	63.0%	54.5%	47.9%	54.3%
Employed Full Time							
Rent	36.8%	16.7%	24.1%	13.6%	28.1%	19.4%	20.0%
Utilities	15.8%	12.5%	27.6%	9.1%	34.4%	19.4%	20.0%
Food	42.1%	16.7%	27.6%	9.1%	28.1%	13.9%	20.0%
Medical Care	21.1%	4.17%	6.9%	13.6%	18.8%	8.3%	16.0%
Dental Care	--	--	--	13.6%	18.8%	5.6%	12.0%
Clothing	42.1%	16.7%	20.7%	50.0%	34.4%	22.2%	36.0%
Recreation	15.8%	20.8%	17.2%	13.6%	25.0%	19.4%	44.0%
Employed Part Time							
Rent	23.4%	13.5%	24.0%	22.2%	25.5%	11.4%	22.5%
Utilities	28.1%	21.2%	36.0%	37.8%	40.0%	15.9%	30.6%
Food	20.3%	15.4%	22.0%	24.4%	20.0%	11.4%	28.6%
Medical Care	10.9%	0.0%	10.0%	6.7%	5.5%	9.1%	0.0%
Dental Care	--	--	--	4.4%	3.6%	2.3%	2.0%
Clothing	28.1%	25.0%	24.0%	62.2%	27.3%	18.2%	36.7%
Recreation	21.4%	13.5%	32.0%	33.3%	32.7%	18.2%	53.1%
Currently Unemployed							
Rent	22.1%	23.7%	22.6%	22.5%	15.9%	11.9%	13.5%
Utilities	28.6%	29.6%	32.3%	28.2%	24.6%	22.3%	23.1%
Food	33.0%	33.3%	32.1%	29.7%	25.2%	25.5%	27.2%
Medical Care	5.3%	5.7%	4.2%	4.2%	3.8%	2.3%	2.4%
Dental Care	--	--	--	3.9%	2.4%	1.8%	1.7%
Clothing	38.3%	44.9%	44.3%	64.0%	35.8%	36.6%	39.9%
Recreation	18.2%	15.7%	19.7%	24.3%	19.9%	17.7%	55.0%

Grey shaded cells are too small for reliable estimates of proportions.

Table14. Insufficient Money for Everyday Expenses during the Past 6 Months among Tri-County CHAIN Participants by Employment Status

TRI-COUNTY	Round 1 <i>2001-03</i>	Round 2 <i>2003-04</i>	Round 3 <i>2004-07</i>	Round 4 <i>2005-07</i>	Round 5 <i>2008-10</i>	Round 6 <i>2010-12</i>	Round 7 <i>2012-13</i>
Total							
Rent	35.9%	29.8%	28.3%	28.2%	28.2%	22.5%	25.7%
Utilities	34.9%	37.6%	39.9%	29.5%	29.2%	26.5%	26.9%
Food	40.3%	41.3%	40.8%	35.0%	35.2%	30.1%	36.0%
Medical Care	11.5%	9.6%	13.9%	12.0%	10.6%	7.2%	6.9%
Dental Care	--	--	--	--	8.6%	7.6%	6.3%
Clothing	49.0%	55.6%	57.9%	47.0%	66.1%	39.8%	48.6%
Recreation	60.4%	65.0%	63.0%	67.1%	65.9%	63.5%	68.0%
Employed Full Time							
Rent	39.2%	36.2%	32.6%	31.6%	36.1%	42.1%	36.4%
Utilities	23.5%	38.3%	39.1%	31.6%	27.8%	47.4%	31.8%
Food	23.5%	31.9%	21.7%	26.3%	30.6%	31.6%	27.3%
Medical Care	15.7%	17.0%	21.7%	15.8%	13.9%	10.5%	13.6%
Dental Care	--	--	--	--	13.9%	21.1%	13.6%
Clothing	35.3%	29.8%	37.0%	42.1%	55.6%	52.6%	54.6%
Recreation	23.5%	17.0%	30.4%	31.6%	27.8%	15.8%	81.8%
Employed Part Time							
Rent	39.1%	31.7%	31.6%	34.5%	42.9%	34.5%	45.5%
Utilities	41.3%	39.0%	44.7%	27.6%	26.2%	37.9%	36.4%
Food	34.8%	43.9%	50.0%	41.4%	42.9%	37.9%	45.5%
Medical Care	19.6%	19.5%	7.89%	17.2%	16.7%	20.7%	9.1%
Dental Care	--	--	--	--	9.5%	17.2%	9.1%
Clothing	52.2%	46.3%	68.4%	44.8%	61.9%	41.4%	40.9%
Recreation	39.1%	12.2%	26.3%	31.0%	21.4%	31.0%	63.6%
Currently Unemployed							
Rent	34.7%	28.2%	26.6%	26.4%	24.1%	18.9%	20.6%
Utilities	35.8%	37.0%	38.9%	29.3%	29.9%	22.9%	24.4%
Food	44.2%	42.7%	42.9%	35.9%	34.4%	28.9%	35.9%
Medical Care	9.5%	6.2%	13.3%	10.2%	8.9%	5.0%	5.3%
Dental Care	--	--	--	--	7.6%	5.0%	4.6%
Clothing	50.9%	62.6%	60.2%	48.5%	68.3%	38.3%	48.9%
Recreation	17.2%	9.7%	15.9%	25.8%	13.8%	14.9%	66.4%

Grey shaded cells are too small for reliable estimates of proportions.

Discussion

The success of antiretroviral therapies has shifted the focus of HIV care from mere survival to quality of life. This report looks into an important dimension of quality of life for PLWH: economic well-being and labor force participation, using longitudinal data that overcome some of the limitations of previous studies.

However, this study is not free of limitations. First, we are unable to explicitly identify participants who are out of the workforce. Although we attempted to account for persons out of the workforce through analyses excluding those receiving SSI and/or SSDI and those over 70 years old, these analyses would have retained as “unemployed” some PLWH who are disabled but not receiving benefits, are full-time caregivers, or retired before age 70.

Second, as seen in other studies, the CHAIN participants’ reasons for disinterest in work do not all translate as barriers to working (e.g., poor health), but can also include barriers to obtaining a job (e.g., lack of education) or even barriers to searching for employment (e.g., lack of vocational services). Therefore, those “disinterested in work” may be overestimated by including both participants who have tried and have been unable to obtain employment and participants who are interested in working but think they cannot obtain a job for lack of skills. Future studies should focus on the subpopulation of PLWH actively seeking work to investigate barriers, as well as focus on the subpopulation of PLWH who are able to work but not at all interested in working to examine their reasons.

Third, although the CHAIN sample at baseline represents NYC and Tri-County PLWH receiving HIV supportive services, CHAIN participants’ age is disproportionately high after a decade or more of follow-up interviews. Many CHAIN participants are approaching or beyond retirement age and have been surviving with the disease for a long time; their older age and longer time living with HIV may skew the results. Nevertheless, findings from this study are generally consistent with previous research, while adding a few new insights.

The results of this study show that CHAIN participants’ labor force participation has remained consistent over the 12-year period of this study. Unemployment rates among CHAIN participants are about 5% higher in Tri-County and 15% higher in NYC than unemployment rates among PLWH described in other published literature (Fleishman, 1998; Brooks & Klosinski, 1999; Blalock et al., 2002; Brooks et al., 2004; Razzano & Hamilton, 2005; USDOL, 2011). Despite the widespread use of antiretroviral therapy and reduced mortality rates, the reason most frequently noted for unemployed participants not seeking employment is poor health. As in other studies (Hergenrather et al., 2004; USDOL, 2011; Martin et al., 2006b), lack of opportunity, job skills, and education are also reported as reasons for disinterest in work. As the NWPC study has revealed (USDOL 2011), relatively few PLWH know about government supported vocational training or services for persons with disabilities. This suggests a missed opportunity for HIV/AIDS health and

social service providers to refer clients to vocational services – an activity that could be encouraged by the government agencies funding those programs.

Study findings regarding factors that increase the likelihood of current employment are also consistent with other study findings. Bernell & Shinogle (2005) and Martin et al. (2006a) found that having an advanced education increases the likelihood of employment, and CHAIN participants' likelihood of employment increased with having at least a high school diploma. Better physical and mental health also increase the chance of current employment, as suggested by Bernell & Shinogle (2005), Burns et al. (2006; 2007), Martin et al. (2006a), and Razzano & Hamilton (2005). The results of this study also show that prior regular work experiences, which could be related to having an advanced education, are correlated with the probability of current employment.

An interesting finding emerged from this study that conflicts with other studies: Fear of losing benefits and other entitlements is less frequently mentioned by CHAIN participants. The prevalence of that reason for disinterest in work in CHAIN is much lower than in other studies (55-73%; Brooks et al., 2004; Conyers, 2004; Conyers & Datti, 2008; Glenn et al., 2003; Rabkin et al., 2004), even after removing participants reporting "poor health" as a reason for not thinking about work. However, multiple regression analyses suggest that receipt of SSI and SSDI reduces the likelihood of employment for CHAIN participants. Although fear of losing benefits and entitlements is less frequently mentioned as a reason for disinterest in work, receiving SSI/SSDI seems to be as strongly inversely associated with employment in the CHAIN study as in other studies (Bernell & Shinogle, 2005; Razzano & Hamilton, 2005). One explanation is that CHAIN participants who receive SSDI are aware of work disincentives – namely, they may lose their benefits if they report employment. Also, individuals receiving SSI/SSDI may indeed be less able to work, compared with other adult PLWH, due to health concerns. An additional analysis (not shown) confirms that SSI/SSDI recipients report "poor health" as a reason for disinterest in work significantly more often than CHAIN participants without SSI/SSDI payments.

Additionally, this study, through multiple models, reveals three paths through which history of substance use affects current employment: 1) (past) problem substance use interferes with person's ability to develop employable skills (e.g., interferes with education); 2) (past) problem substance use increases likelihood of incarceration, which in turn interferes with accumulating employable skills (as stated in (1) above), as well as becoming a basis of discrimination or a barrier for employment; and 3) (past and current) problem substance use worsens health. Barnell & Shinogel (2005) found that employed participants were less likely to have a history of intravenous drug use, and Martin et al. (2006a) reported that substance use relapse during the study period was a barrier to workforce reentry. This study indicates that substance use, whether *past* or *current* (and whether intravenous or not), is a predictor of *current* unemployment through several mediators.

Overall, CHAIN participants rely heavily on social welfare benefits (SSI, SSDI, food subsidies, rental subsidies, etc.) to manage everyday expenses. Receipt of these benefits has increased substantially over time. There has been a roughly 30-percentage point increase in receipt of food subsidies in Tri-County and a 13-percentage point increase in NYC. While CHAIN surveys do not include food and rental subsidies as part of participants' income, increases in these additional financial supports (SSI, SSDI, etc.) may explain the decreased proportions of participants living under the poverty threshold, despite the low income and low employment rates that have been consistent since Round 1. The increased prevalence of food and rental subsidies is associated with a large secular decline in need for money to cover rent, but secular changes have been less substantial for food and utilities.

Finally, CHAIN participants employed full-time have higher proportions reporting insufficient money for medical and dental care, and those employed part-time have higher proportions reporting insufficient money for rent, utilities, and food. Although the sample size is small for accurate comparisons, employed participants, whose annual household income is about \$15,000 above the income of non-working participants, seem to have similar levels of financial hardship. These findings suggest at least part of the bind of promoting employment for this population. While income from work may alleviate poverty based on formal measures, it comes at the expense of subsidies for food and rent, and seldom rises to a level that is sufficient to cover many daily expenses. Given that some studies have identified physical and mental health benefits associated with working (Rueda et al., 2011; Rueda et al., 2012a; Rueda et al., 2012b; Blalock et al., 2002), the availability of vocational services should be promoted to more PLWH who are able to work, and policies should be developed and implemented that do not financially penalize working PLWH.

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Appendix

Table 15. Odds Ratios for the Outcome of Employment from Random Effects Logit Model

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Tri-County	5.518 ***	5.018 ***	4.017 ***	3.599 ***	3.714 ***	3.378 ***
Age 40-49		0.247 ***	0.299 **	0.244 ***	0.264 ***	0.440 *
Age >=50		0.156 ***	0.204 ***	0.177 ***	0.184 ***	0.662
Male		1.889 *	2.101 **	1.502	1.754 *	1.104
Black		1.249	1.249	1.811	1.851	1.501
Latino		0.786	0.677	1.254	1.307	1.265
Past Problem Substance User			0.423 **	0.478 *	0.634	0.872
Current Problem Substance User			0.192 ***	0.292 ***	0.389 **	0.717
HSD/GED				2.038 *	1.954 *	1.535
More than HS				5.827 ***	5.313 ***	3.385 ***
Received Further Education or Job Training				1.835 *	1.697	1.270
Ever Worked Year or More				7.001 ***	6.464 ***	3.786 ***
Ever incarcerated					0.447 **	0.560 *
Physical Health Functioning						1.074 ***
Mental Health Functioning						1.049 ***
Recent Opportunistic Infection						0.749
CD4 Count: 200-349 cells/mm						1.136
CD4 Count: 350-499 cells/mm						0.831
CD4 Count: ≥ 500cells/mm						0.914
Taking HAART						1.227
Year of HIV Diagnosis 1991-1996						0.539
Year of HIV Diagnosis after 1996						0.578
Receiving SSI or SSDI						0.073 ***
_cons	0.014 ***	0.041 ***	0.091 ***	0.008 ***	0.009 ***	0.000 ***
Number of Observations	2498	2497	2497	2445	2358	2331
Number of Participants	1249	1248	1248	1225	1190	1173
Average Number of Interviews	2.000	2.001	2.001	1.996	1.982	1.987
Chi-Squared	36.859 ***	56.250 ***	69.227 ***	90.144 ***	87.165 ***	148.375 ***

Table 16. Odds Ratios for the Outcome of Employment from Random Effects Logit Model Excluding Participants Receiving SSI or SSDI, and Participants over Age 70

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Tri-County	13.812 ***	14.250 ***	9.406 ***	8.246 ***	7.567 ***	6.890 ***
Age 40-49		0.393	0.471	0.375 *	0.400	0.458
Age >=50		0.249 *	0.311 *	0.282 *	0.306	0.476
Male		1.478	1.632	1.185	1.295	1.035
Black		1.120	1.115	1.975	2.396	3.097
Latino		0.907	0.741	1.548	1.762	2.795
Past Problem Substance User			0.291 *	0.398	0.572	0.522
Current Problem Substance User			0.148 ***	0.289 *	0.408	0.537
HSD/GED				1.905	1.860	1.654
More than HS				6.578 **	5.551 **	4.725 **
Received Further Education or Job Training				1.082	1.041	0.560
Ever Worked Year or More				11.127 ***	9.498 ***	6.798 **
Ever incarcerated					0.356 *	0.382 *
Physical Health Functioning						1.123 ***
Mental Health Functioning						1.085 ***
Recent Opportunistic Infection						0.738
CD4 Count: 200-349 cells/mm						2.764
CD4 Count: 350-499 cells/mm						0.859
CD4 Count: ≥ 500cells/mm						1.513
Taking HAART						1.102
Year of HIV Diagnosis 1991-1996						0.165 **
Year of HIV Diagnosis after 1996						0.226 *
Receiving SSI or SSDI						
_cons	0.067 ***	0.121 *	0.322	0.015 ***	0.018 ***	0.000 ***
Number of Observations	916	915	915	890	871	867
Number of Participants	546	545	545	529	518	516
Average Number of Interviews	1.678	1.679	1.679	1.682	1.681	1.680
Chi-Squared	30.254 ***	33.333 ***	40.282 ***	45.249 ***	45.216 ***	59.275 ***

Table 17. Odds Ratios for the NYC Outcome of Employment from Random Effects Logit Model

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age 40-49	0.198 **	0.207 **	0.136 ***	0.147 **	0.232 **
Age >=50	0.161 ***	0.172 **	0.127 ***	0.129 ***	0.426
Male	1.865	2.041	1.257	1.420	0.975
Black	1.686	1.615	2.728	2.491	1.952
Latino	0.691	0.636	1.280	1.254	1.431
Past Problem Substance User		0.836	0.874	0.997	0.977
Current Problem Substance User		0.437	0.640	0.753	1.029
HSD/GED			3.515 **	3.317 **	2.261 *
More than HS			15.234 ***	14.368 ***	7.822 ***
Received Further Education or Job Training			1.834	1.712	1.491
Ever Worked Year or More			6.523 **	5.856 **	3.506 *
Ever incarcerated				0.622	0.667
Physical Health Functioning					1.076 ***
Mental Health Functioning					1.055 **
Recent Opportunistic Infection					0.632
CD4 Count: 200-349 cells/mm					1.370
CD4 Count: 350-499 cells/mm					0.799
CD4 Count: ≥ 500cells/mm					0.823
Taking HAART					0.875
Year of HIV Diagnosis 1991-1996					0.521
Year of HIV Diagnosis after 1996					0.627
Receiving SSI or SSDI					0.113 ***
_cons	0.034 ***	0.048 ***	0.004 ***	0.004 ***	0.000 ***
Number of Observations	1772	1772	1738	1652	1637
Number of Participants	726	726	716	682	675
Average Number of Interviews	2.441	2.441	2.427	2.422	2.425
Chi-Squared	18.184 *	21.630 **	45.833 ***	43.779 ***	83.235 ***

Table 18. Odds Ratios for the NYC Outcome of Employment from Random Effects Logit Model Excluding Participants Receiving SSI or SSDI, and Participants over Age 70

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age 40-49	0.278	0.324	0.210 *	0.220 *	0.239*
Age >=50	0.183 *	0.233	0.199 *	0.219	0.333
Male	1.987	2.290	1.369	1.433	1.260
Black	1.210	1.254	1.835	2.038	2.003
Latino	0.355	0.333	0.565	0.636	1.144
Past Problem Substance User		0.459	0.760	0.948	0.690
Current Problem Substance User		0.228 *	0.497	0.618	0.825
HSD/GED			4.654 *	4.214 *	3.893
More than HS			44.791 ***	35.789 ***	28.433***
Received Further Education or Job Training			1.688	1.647	0.956
Ever Worked Year or More			6.056 *	4.676	4.342
Ever incarcerated				0.471	0.597
Physical Health Functioning					1.123***
Mental Health Functioning					1.093**
Recent Opportunistic Infection					0.727
CD4 Count: 200-349 cells/mm					6.046*
CD4 Count: 350-499 cells/mm					0.968
CD4 Count: ≥ 500cells/mm					1.733
Taking HAART					0.594
Year of HIV Diagnosis 1991-1996					0.110*
Year of HIV Diagnosis after 1996					0.200*
Receiving SSI or SSDI					
_cons	0.102	0.194	0.009 **	0.014 **	0.000***
Number of Observations	627	627	613	594	592
Number of Participants	305	305	299	288	288
Average Number of Interviews	2.056	2.056	2.050	2.063	2.056
Chi-Squared	8.422	11.687	27.971 **	26.654 *	39.402*

Table 19. Odds Ratios for the Tri-County Outcome of Employment from Random Effects Logit Model

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age 40-49	0.417	0.616	0.651	0.690	0.982
Age >=50	0.185 **	0.292 *	0.314 *	0.345 *	0.960
Male	1.866	1.974	1.665	1.978	1.159
Black	0.915	0.874	1.158	1.349	1.273
Latino	1.051	0.708	1.232	1.369	1.035
Past Problem Substance User		0.247 **	0.299 **	0.446	0.772
Current Problem Substance User		0.096 ***	0.152 ***	0.211 **	0.436
HSD/GED			1.107	1.108	1.016
More than HS			1.951	1.807	1.324
Received Further Education or Job Training			1.679	1.517	0.810
Ever Worked Year or More			5.959 **	5.717 **	3.400 *
Ever incarcerated				0.369 *	0.583
Physical Health Functioning					1.056 ***
Mental Health Functioning					1.032
Recent Opportunistic Infection					1.164
CD4 Count: 200-349 cells/mm					0.710
CD4 Count: 350-499 cells/mm					0.655
CD4 Count: ≥ 500cells/mm					0.766
Taking HAART					1.992
Year of HIV Diagnosis 1991-1996					0.620
Year of HIV Diagnosis after 1996					0.577
Receiving SSI or SSDI					0.068 ***
_cons	0.260	0.654	0.081 **	0.077 **	0.009 **
Number of Observations	721	721	703	702	690
Number of Participants	519	519	506	505	495
Average Number of Interviews	1.389	1.389	1.389	1.390	1.394
Chi-Squared	11.881	23.638 **	28.047 **	28.266 **	44.344 **

Table 20. Odds Ratios for the Tri-County Outcome of Employment from Random Effects Logit Model Excluding Participants Receiving SSI or SSDI, and Participants over Age 70

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Age 40-49	0.722	0.853	0.837	0.978	1.084
Age >=50	0.496	0.520	0.500	0.551	0.666
Male	1.119	1.132	0.992	1.136	1.015
Black	0.915	0.792	1.163	1.519	3.494
Latino	1.631	1.150	1.815	2.122	2.971
Past Problem Substance User		0.319 *	0.344	0.472	0.451
Current Problem Substance User		0.197 **	0.294 *	0.410	0.287
HSD/GED			0.968	1.028	0.752
More than HS			1.232	1.109	0.698
Received Further Education or Job Training			0.574	0.513	0.217 *
Ever Worked Year or More			8.301 **	8.610 **	6.415 *
Ever incarcerated				0.331	0.221 *
Physical Health Functioning					1.107 **
Mental Health Functioning					1.065 *
Recent Opportunistic Infection					1.031
CD4 Count: 200-349 cells/mm					0.621
CD4 Count: 350-499 cells/mm					0.346
CD4 Count: ≥ 500cells/mm					0.750
Taking HAART					3.380
Year of HIV Diagnosis 1991-1996					0.295
Year of HIV Diagnosis after 1996					0.288
Receiving SSI or SSDI					
_cons	1.214	2.497	0.304	0.256	0.000 **
Number of Observations	286	286	275	275	273
Number of Participants	238	238	228	228	226
Average Number of Interviews	1.202	1.202	1.206	1.206	1.208
Chi-Squared	3.671	9.192	12.128	12.601	12.938

Table 21. Trends in Employment, Interest in Work, and Poverty Level: Random Effects Logit Model Odds Ratios

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
New York City	<i>2002-04</i>	<i>2004-05</i>	<i>2005-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-11</i>	<i>2011-13</i>
Currently Employed	1	1.196	1.439	1.396	1.091	0.841	0.970
Unemployed: Interested in Work	1	0.784	0.662*	0.454***	0.476***	0.460***	0.328***
Under Poverty threshold	1	0.678*	0.490***	0.367***	0.314***	0.172***	0.416***
Among those who completed 4 or more interviews							
Currently Employed	1	1.057	1.362	1.269	1.071	0.728	0.820
Unemployed: Interested in Work	1	0.851	0.664*	0.465***	0.436***	0.404***	0.336***
Under Poverty threshold	1	0.739	0.492***	0.388***	0.310***	0.179***	0.426***
Tri County	<i>2001-03</i>	<i>2003-04</i>	<i>2004-07</i>	<i>2005-07</i>	<i>2008-10</i>	<i>2010-12</i>	<i>2012-13</i>
Currently Employed	1	1.151	1.069	1.098	0.721	0.437*	0.705
Unemployed: Interested in Work	1	0.851	1.135	0.428**	0.539*	0.537*	0.251***
Under Poverty threshold	1	1.126	1.582*	0.506**	0.575*	0.381***	0.813
Among those who completed 4 or more interviews							
Currently Employed	1	0.703	0.856	0.671	0.285*	0.169**	0.160**
Unemployed: Interested in Work	1	1.205	1.550	0.471*	0.577	0.405*	0.127***
Under Poverty threshold	1	1.344	1.447	0.661	0.804	0.376*	0.904

* $p < .05$, ** $p < .01$, *** $p < .001$,

Table 22. Sources of Income: NYC

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
	2002-04	2004-05	2005-07	2007-08	2008-09	2009-11	2011-13
Regular Job Earnings, Salary	17.9%	19.6%	25.0%	24.6%	22.5%	17.8%	16.0%
Odd jobs, peddling, off-the-books work	18.9%	12.8%	16.2%	16.5%	13.0%	7.3%	7.4%
Rental payments (inc. money from boarders)	2.7%	2.4%	2.9%	2.3%	1.5%	2.0%	2.0%
Interest, annuities, stock dividends	1.7%	1.5%	2.5%	3.0%	2.1%	1.1%	1.1%
Unemployment insurance	2.0%	0.9%	0.8%	1.0%	2.2%	2.0%	1.5%
Illegal activities (e.g., hustling, selling drugs)	4.2%	2.2%	1.3%	1.3%	0.5%	0.5%	0.0%
Worker's compensation	0.4%	0.4%	0.2%	0.0%	0.3%	0.3%	0.0%
Veterans benefits or Armed Forces Allotments	1.3%	1.3%	1.0%	1.8%	1.5%	1.1%	1.1%
Alimony or child support	1.6%	2.2%	2.9%	2.8%	1.7%	1.4%	1.3%
WIC food program	2.3%	2.2%	2.9%	3.5%	1.9%	2.0%	2.6%
Social Security or retirement pensions	6.1%	6.4%	6.4%	6.3%	7.0%	5.6%	5.5%
Social Security Disability income (SSDI)	22.5%	23.5%	24.2%	25.3%	23.8%	24.3%	24.7%
Supplemental Security Income (SSI)	43.9%	48.9%	49.5%	53.0%	50.6%	53.0%	53.4%
Foster Care payments	0.4%	0.9%	1.7%	0.3%	1.0%	0.9%	1.3%
Welfare payments (TANF)	21.9%	23.2%	21.2%	15.0%	16.7%	10.3%	11.1%
Scholarships, fellowships, student loans	1.6%	3.1%	2.7%	2.0%	2.4%	2.2%	3.3%
Other Public Assistance (HEAP, utilities)	7.7%	12.4%	28.3%	19.5%	16.1%	18.0%	15.3%
Gifts from mate, family, friends	14.4%	12.8%	19.1%	14.8%	10.0%	9.0%	15.8%
Cash check from DAS/DASIS/HASA	3.9%	3.5%	4.6%	3.8%	4.8%	3.9%	2.2%
Stipend	10.7%	9.5%	8.1%	5.8%	6.5%	4.8%	4.2%
Other	32.3%	30.0%	18.8%	16.0%	18.4%	17.1%	12.9%

Table 23.Sources of Income: Tri-County

	Round 1 2001- 03	Round 2 2003- 04	Round 3 2004- 07	Round 4 2005- 07	Round 5 2008- 10	Round 6 2010- 12	Round 7 2012- 13
Regular Job Earnings, Salary	39.5%	37.8%	37.2%	40.6%	35.4%	28.9%	36.0%
Odd Jobs, Peddling, Off-the-Books Work	15.1%	13.3%	15.2%	18.4%	19.2%	11.2%	13.7%
Rental Payments (inc. Money from Boarders)	4.5%	7.9%	6.2%	3.4%	2.3%	1.6%	1.7%
Interest, Annuities, Stock Dividends	2.5%	2.6%	3.9%	4.3%	1.3%	1.6%	0.6%
Unemployment Insurance	1.5%	0.3%	2.1%	2.1%	4.0%	5.6%	6.9%
Illegal Activities (e.g., Hustling, Selling Drugs)	0.5%	1.0%	1.8%	2.1%	2.0%	0.4%	2.3%
Worker's Compensation	1.3%	1.3%	1.2%	0.4%	0.3%	0.4%	0.6%
Veterans Benefits or Armed Forces Allotments	2.8%	1.9%	3.0%	2.6%	1.0%	0.8%	0.0%
Alimony or Child Support	4.8%	3.2%	3.9%	2.6%	1.0%	2.0%	4.6%
WIC Food Program	4.3%	3.8%	3.9%	3.9%	4.6%	6.0%	2.3%
Social Security or Retirement Pensions	7.3%	6.7%	9.5%	10.7%	7.6%	8.4%	12.0%
Social Security Disability Income (SSDI)	25.6%	29.2%	32.3%	36.2%	27.9%	30.9%	33.7%
Supplemental Security Income (SSI)	39.0%	40.0%	37.9%	39.3%	39.5%	41.0%	41.7%
Foster Care Payments	1.3%	0.3%	0.3%	0.0%	0.0%	1.2%	0.0%
Welfare Payments (TANF)	15.9%	17.5%	18.9%	16.2%	13.6%	15.3%	8.6%
Scholarships, Fellowships, Student Loans	1.8%	3.5%	4.4%	2.3%	2.3%	6.0%	8.0%
Other Public Assistance (HEAP, Utilities)	5.8%	5.7%	10.4%	8.1%	8.3%	14.9%	10.9%
Gifts from Mate, Family, Friends	5.8%	3.8%	13.0%	14.1%	14.2%	10.8%	10.3%
Cash Check from DAS/DASIS/HASA	4.0%	2.5%	4.1%	3.4%	4.0%	2.8%	1.7%
Stipend	1.8%	1.3%	3.6%	4.7%	3.6%	0.4%	2.3%
Other	--	--	--	--	3.6%	1.2%	0.6%

CHAIN Survey Questions Regarding Employment and Economic Well-being

Section C.

Since the last time that we interviewed you, that is since (date last interview), have you attended any type of school or job training? (NYC Round 2-6, Tri-County Round 4)

During the 12 months, that is since (12 months reference date) have you attended any type of school or job training? (NYC Round 5 Refresher, Round 6 Refresher, Tri-County Round 5, Round 6)

During the past six months, that is since (6 months reference date) have you attended any type of school or job training? (NYC Round 1, Tri-County Round 1-3)

- 1 Yes
- 0 No

Are you currently working in a paid position, part-time or full-time?

- 1 Not employed
- 2 Irregular, occasional part-time work (less than 35 hours per week)
- 3 Employed part-time, regular job (less than 35 hours per week)
- 4 Employed full-time (35+ hours per week)
- 5 Employed more than full-time (works more than 1 job totaling more than 40 hours/week)
- 6 Not working for pay, but volunteering regularly at a program or agency

Have you ever been regularly employed for at least one year?

- 1 Yes
- 0 No

Ask if not currently working or volunteering for no pay

Are you thinking about or planning to get a job/go back to work now?

- 1 Yes
- 0 No

IF Respondent is not considering working

What are some of the reasons for not wanting to get a job or go to work right now?

(open-ended)

(Field code all that apply)

- | | |
|-----------------------------------|---------------------------------|
| 1. Don't feel well enough | 7. Perceived lack of job skills |
| 2. Not sure will stay well enough | 8. Need to take care of someone |
| 3. Fear losing medical benefits | 9. Go to school |
| 4. Fear losing other entitlements | 10. Drug treatment |
| 5. No job opportunities | 11. Retirement |
| 6. Perceived lack of education | 12. other |

IF Respondent is considering working

What are some of the reasons for thinking about getting a job/going back to work?
(open-ended)

(Field code all that apply)

1. Feel better, health is better
2. Want to get back to my occupation or trade
3. Required to work to get benefits, workfare
4. Have opportunity for training
5. Have opportunity for employment
6. Need money to take care of my family's needs
7. Bored
8. Social meaning
9. other

We would like to get an idea of the different ways people sometimes get money or financial support. We ask about different sources of income because it affects how a person may or may not get the services he or she needs. Remember that all the information you give me is confidential. Please tell me if, in the last six months, you or anyone else in the household got any money from...
0=No one, 1=Respondent, 2=Other in the household, 3=both

- A. Regular job earnings, salary
- B. Odd jobs, peddling, off-the-books work
- C. Rental payments (inc. money from boarders)
- D. Interest, annuities, stock dividends
- E. Unemployment insurance
- F. Illegal activities or actions that could be considered illegal (e.g., hustling, selling drugs)
- G. Worker's compensation
- H. Veterans benefits or Armed Forces allotments
- I. Alimony or child support
- J. WIC (Women, Infant and Children) food program
- K. Social Security or Retirement pensions
- L. Social Security Disability income (SSDI)
- M. Supplemental Security Income (SSI)
- N. Foster care payments
- O. Food stamps
- P. A.F.D.C. welfare payments (now TANF)
- Q. Rental subsidy, section 9, or short term rental assistance
- R. Scholarships, fellowships, student loans
- S. Other public assistance (PA, HEAP, utilities assistance)
- T. Gifts from mate, family, friends
- U. Stipend
- V. Cash check from DAS/DASIS/HASA
- W. Other

What was your total household income for (*last year*)? Please include income from all sources: your salaries, wages, and any benefits, including social security, welfare, gifts or any other income. Please do not include food stamps or rental subsidies.

code	Monthly amount	Yearly amount
1	\$416 or less per month	\$4,999 or less per year
2	\$417-624	\$5000 – 7499
3	\$625-834	\$7,500 – 9,999
4	\$835-1,249	\$10,000 – 14,999
5	\$1,250 – 2,084	\$15,000 - \$24,999
6	\$2,085 – 2,914	\$25,000 - \$34,999
7	\$2,915 – 3,749	\$35,000 - \$44,999
8	\$3,750 – 4,584	\$45,000 – 54,999
9	\$4,585 – 5,834	\$55,000 – 69,999
10	\$5,835 or more	\$70,000 or more

In the last six months, how often has it happened that there was not enough money in the household for...

0 = never, 1 = once in a while, 2 = fairly often, 3 = very often

- A. Rent
- B. Utilities (gas, electric, phone)
- C. Food that you (the family) should have
- D. Medical care
- E. Dental care (the family) should have
- F. Clothing that you (the family) should have
- G. Recreational activities that you (the family) want