New York's Retirees: Falling into Poverty
A Research Report on the Downward Mobility of New York's Next Generation of Retirees

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The financial security of the next generation of New York retirees is at risk. If current trends persist, 37% or close to 750,000 workers approaching retirement[1] who live in metropolitan areas of New York State, are projected to be poor or near poor in retirement. This impeding crisis is due to the decline in employer sponsorship of retirement savings vehicles[2], the increasing prevalence of defined contribution (DC) plans over traditional defined benefit (DB) plans, and the overall erosion of household savings.

Traditionally, American workers have relied on benefits from Social Security, retirement savings from employer-sponsored plans, and other personal savings to ensure an adequate income at retirement. However, employers are increasingly less likely to sponsor a retirement plan for any of their employees—a trend that is evident across the nation, but particularly alarming in New York City. A recent report by the Schwartz Center for Economic Policy Analysis (SCEPA) and the New York City Comptroller's Office found that between 2000 and 2009, the percentage of employers in New York City who sponsored a retirement plan for any of their employees fell by 8 percentage points, from 48 percent to 40 percent.[3]   This means that 60 percent of workers currently do not have access to any retirement plan at work.

Moreover, if workers do have a retirement plan through their employer, these plans have shifted from DB plans, where workers are guaranteed a set payment for life based on years of service and salary, to DC or individual account 401k-type plans. DC plans shift all the risks and cost of retirement onto the shoulders of workers: they charge exorbitant fees that eat away at returns,[4] require workers to choose from a bewildering and opaque menu of investment options, may be exhausted before the end of a worker's life, and—as the Great Recession has shown—are vulnerable to huge losses in a bear market.

To assess the future impact of these factors on the retirement readiness of New Yorkers, we looked at workers who are currently ages 25-64 and are living in metropolitan areas of New York State (46% of whom live in New York City), and we projected the income stream that will be available to them when they reach age 65.[5] This income stream includes the current value of their total net worth at age 65, including the value of their personal assets, savings for retirement in employer-sponsored plans, and Social Security built up over their lifetime. Next, we compare workers' future income stream to the NYC adjusted poverty threshold—a minimum benchmark for adequacy—to evaluate the future financial standing of these workers. Results show that if current trends persist, many middle and low income workers will experience downward mobility or a steep drop in their living standards when they retire, and several will face severe economic hardship:

- 23 percent of workers ages 25-64 living in New York State metropolitan areas will not have the assets needed to prevent them from being poor when they retire at age 65. This means their total net worth, including all of their savings for retirement in employer-sponsored plans and Social Security built up over their lifetime, will not be sufficient to keep them above the NYC adjusted poverty level of $13,662.[6]

- 36 percent of workers ages 55-64 living in New York State metropolitan areas who are nearing retirement are at risk of being poor or near-poor, meaning they will be living at or below 200 percent of the NYC adjusted poverty level of $27,324.

- 74 percent of currently low-income workers and 35 percent of currently middle-income workers ages 50-64 living in New York State metropolitan areas are projected to be poor or near-poor in retirement.

- Although workers who participate in a retirement plan are at a lower risk of being poor in retirement than those who do not save for retirement, workers whose primary retirement plan is a DC plan fare significantly worse than those whose primary plan is a DB plan. Thirty-eight percent of workers ages 25-64 whose primary plan is a DC plan will be poor or near-poor compared to only 7 percent of DB plan participants.

This analysis strongly suggests the need for policies that reverse the erosion in retirement income and the consequent downward mobility of the elderly by providing workers access to employment-based retirement savings vehicles to supplement their Social Security benefits.

The Current State of Elderly Poverty in New York

The amount of savings needed to retire comfortably varies from person to person and depends on their personal characteristics, health status, life expectancy, current financial situation, and preferences for consumption. As such, this report does not look at retirement readiness from the perspective of maintaining pre-retirement standards of living, but uses a more absolute measure of adequacy—the NYC adjusted poverty threshold—to calculate the proportion of future elderly that will be living on the margins of society. Unable to gain a secure footing financially, these retirees will be dependent on the public and younger generations for support.

Current elderly poverty rates in New York City are already among the highest in the nation. Between 2008 and 2010 the US Census Bureau estimates that the NYC poverty rate for adults 65 plus was 11.5 percent compared to 9.4 percent nationwide.[7,8] Statewide, official poverty rates in 2009 were at 10.1 percent for the poor elderly and 34.8 percent for the near-poor elderly, or those living at or below 200 percent of the poverty threshold.[9]

What does life at the federal poverty threshold look like? Using data from the 2010 Consumer Expenditure Survey, a SCEPA report on elderly poverty[10] estimated that living at 100% of the federal poverty level would allow $5/day for food, under $400/month for housing, less than $4/day for transportation, around $100/month for utilities, and approximately $120/month for health care. At 200 percent of the federal poverty threshold food allowance is $8/day, housing $650/month, transportation $10/day, utilities $180/month and health care only $260/month.

Note that for New York State residents, the average after-tax income required by an elderly person living alone is 1.8 to 2.7 times higher than the 2009 federal poverty threshold of $857 per month ($10,289 per year).[11] In fact, their income requirement is closer to 200 percent of the federal poverty threshold, or around $20,578. Thus, poverty rates at 200 percent of the official poverty threshold are a more realistic portrayal of the incidence of elderly poverty in NY. The NYC Center for Economic Opportunity (CEO) estimates that the elderly poverty rate in New York City was closer to 23.6 percent in 2009 based on their NYC adjusted poverty threshold.

Because it more accurately reflects the high cost of living in urban NY areas, this report uses the CEO's poverty measure as a benchmark for income adequacy in retirement. We look at the percentage of future retirees who will be living at 100 percent and 200 percent of this threshold. Unlike the US Census Bureau's official federal poverty measure that was developed in the 1960s that does not take into account the rise in the cost of housing, medical spending, or regional differences in cost of living that affect contemporary spending patterns, the CEO measure includes the cash equivalent value of in-kind benefits through means tested programs and the out of pocket costs associated with commuting to work, childcare, and medical care.[12] Since it is more inclusive in nature, we also use the CEO threshold for individuals that live in other urban areas in NY State, even though the cost of living in these areas is typically lower than in NYC.[13]

The Future of Elderly Poverty in New York

To assess the severity of the coming crisis in New York we projected the income stream available to workers who are currently ages 25-64 and who live in New York state metropolitan areas when they reach age 65.[14] We choose to focus on metropolitan residents, 46% of whom live in New York City, because the higher cost of living in urban areas differentiates these future retirees from their rural counterparts.
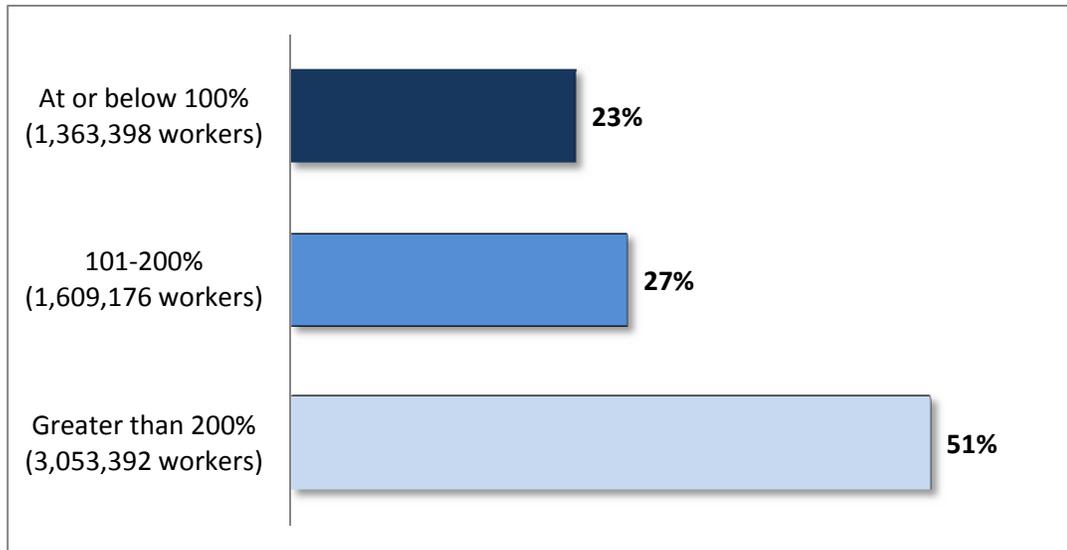
A complete evaluation of a worker's readiness for retirement must take into account income from Social Security, savings in employer-sponsored retirement plans, and any other personal savings. The Survey of Income and Program Participation (SIPP) data offers a comprehensive listing of survey respondents' financial assets, including the value of their bank accounts, bonds and securities, savings bonds, stocks and mutual funds, life insurance policies, IRA / KEOGH accounts, DC accounts, real estate holdings, home equity, and business equity. There is also information on total debt owed. The data can be used to compute a projected stream of income in retirement from workers' net worth. This, in addition to a projection of Social Security benefits and income from retirement savings, gives a complete picture of the income available to workers when they retire at age 65.[15] To assess whether workers are financially prepared to retire, their total future income is compared to the NYC adjusted poverty threshold of $13,662—a minimal benchmark for adequacy of resources in retirement. [16,17] For a detailed look at these calculations, see Box 1 "Calculating Assets Available in Retirement".

Future Elderly Poverty by Age

Figure 1 shows the percentage of New York metropolitan workers ages 25-64 who will be poor (100 percent or below the poverty threshold), near-poor (101-200 percent of the poverty threshold), or those that will have adequate resources in retirement (above 200 percent of the poverty threshold) when they retire at age 65. Workers that fall below 200 percent of the poverty threshold are considered at risk of not being able to make ends meet when they retire at age 65.

Figure 1. Projected retirement income as a percent of the NYC poverty threshold, all workers ages 25-64

50 percent of workers will be poor or near poor in retirement

|	
At or below 100% (1,363,398 workers)	23%
101-200% (1,609,176 workers)	27%
Greater than 200% (3,053,392 workers)	51%

Source: 2008 Survey of Income and Program Participation (SIPP) Panel. *Notes:* Totals may not add up due to rounding. Total workforce (6,025,966) is limited to civilian residents of NY State Metropolitan areas, ages 25-64 who stated that they worked at some point in the reference period (the past four months) and who had positive earnings; it also excludes unpaid family workers and workers in the agriculture, forestry, and fishing sectors. Total income available in retirement includes Social Security, an annuitized version of total net worth, and income from a DB plan when applicable. See the appendix for the full methodology behind these calculations.

Twenty-three percent of New York State metropolitan area workers ages 25-64 are projected to be poor when they retire at age 65. This means their assets, including all of their savings for retirement in employer-sponsored plans and Social Security built up over their lifetime, will not be sufficient to keep them above the NYC poverty level of $13,662. Overall, 50 percent of all workers are projected to be poor or near-poor, meaning they will be living on $27,324 or less. In other words, half of the current workforce in the New York State metropolitan areas is in danger of having inadequate resources in retirement.

Breaking down the results by age group, we find that younger workers face a future that is bleaker than their older counterparts; 59 percent of 25-44 year olds will be poor or near-poor compared with 36 percent of workers ages 55-64. However, the results for this oldest age group are especially troubling because many of them no longer have the time or earnings potential to build-up the savings they need to retire comfortably.

Figure 2. Projected retirement income as a percent of the NYC poverty threshold by age category

36 percent of workers nearing retirement will be poor or near-poor
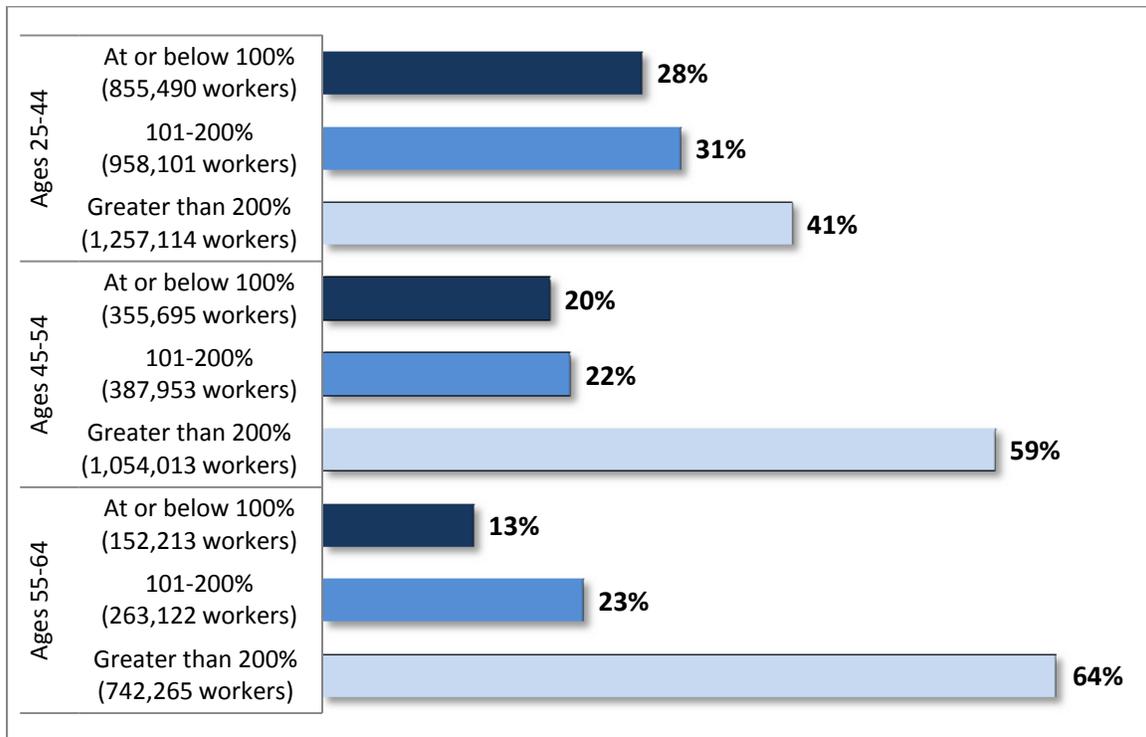
Source: See Figure 1. *Notes:* Totals may not add up due to rounding. See the appendix for the full methodology behind these calculations.

Note that these numbers are based on data collected in 2009 at one of the low points of the Great Recession, and may paint a bleaker picture of the future than will actually arise. To see if these low numbers are driving the results, the value of net worth for all individuals who had positive net worth in the sample is inflated by 20 percent. The impact on poverty rates is minimal, partially because many workers have no assets to begin with: 28 percent of 25-44 year olds are projected to live on $13,662 or less in retirement, compared with 12 percent of workers ages 55-64.[1] In other words, our predictions are not a product of the recent Great Recession. See Table 2 in the Appendix for full results.
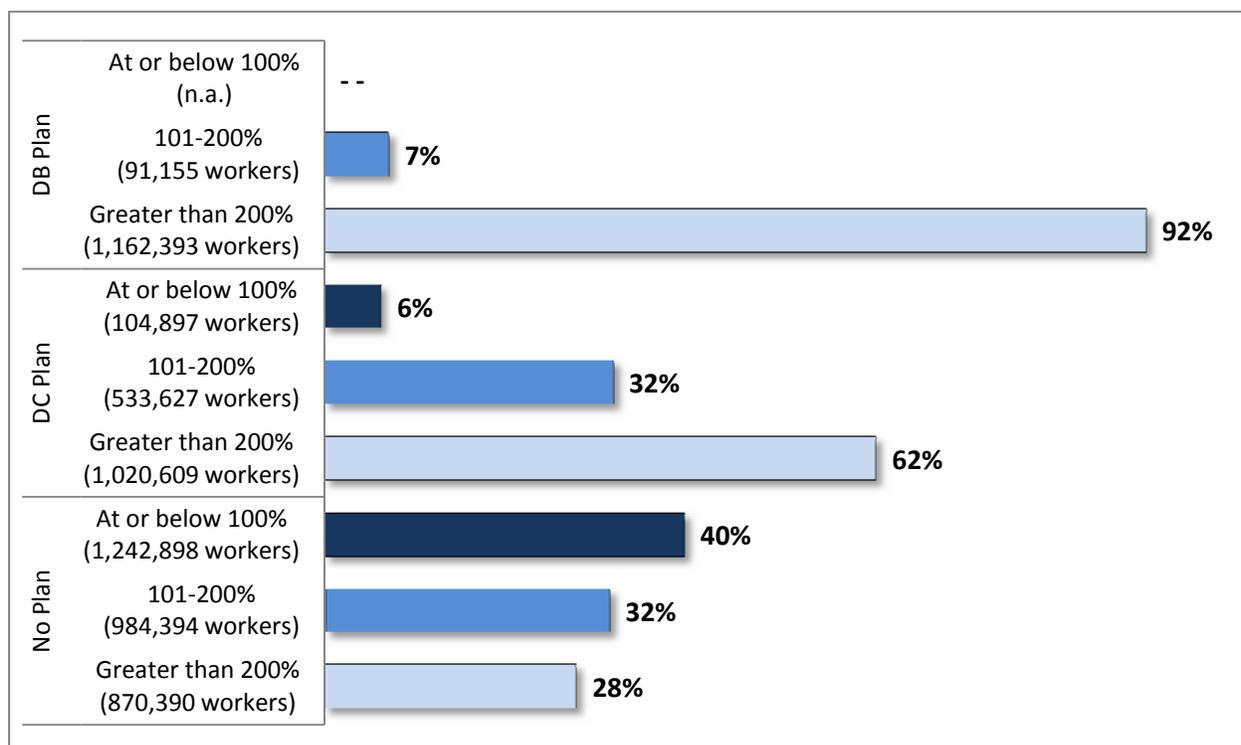
Future Elderly Poverty by Plan Type

Although workers who participate in a retirement plan are at a lower risk of being poor in retirement than those who do not save for retirement, workers whose primary retirement plan is a DC plan fare significantly worse than those whose primary plan is a DB plan (see Figure 3 below). 38 percent of workers whose primary plan is a DC plan will be poor or near poor compared to only 7 percent of DB plan participants. Ninety-two percent, or well over one million workers with a DB plan, are projected to have the resources needed to retire above 200 percent of poverty threshold.

Unsurprisingly, the workers who will fare the worst in retirement are those that currently do not participate in any type of workplace retirement plan. Seventy-two percent of workers currently ages 25-64 are projected to be poor or near-poor in retirement. On the other hand, 28 percent of workers

without a retirement plan are projected to have adequate resources in retirement, meaning that this cohort has enough personal savings or other assets to compensate for their lack of savings in a retirement plan. Note that because our definition of income includes the annuitized value of all assets, including home equity, these additional savings may be tied up in illiquid assets.

Figure 3. Projected retirement income as a percent of the NYC poverty threshold by worker's primary retirement plan

Seventy-two percent of workers with no primary retirement plan will be poor or near-poor in retirement

DB Plan	At or below 100% (n.a.)	- -
	101-200% (91,155 workers)	7%
	Greater than 200% (1,162,393 workers)	92%
DC Plan	At or below 100% (104,897 workers)	6%
	101-200% (533,627 workers)	32%
	Greater than 200% (1,020,609 workers)	62%
No Plan	At or below 100% (1,242,898 workers)	40%
	101-200% (984,394 workers)	32%
	Greater than 200% (870,390 workers)	28%

Source: See Figure 1. Note: Totals may not add up due to rounding. See appendix for further details. - - denotes that the cell size or sample size was not large enough to draw any meaningful conclusions about this particular population.
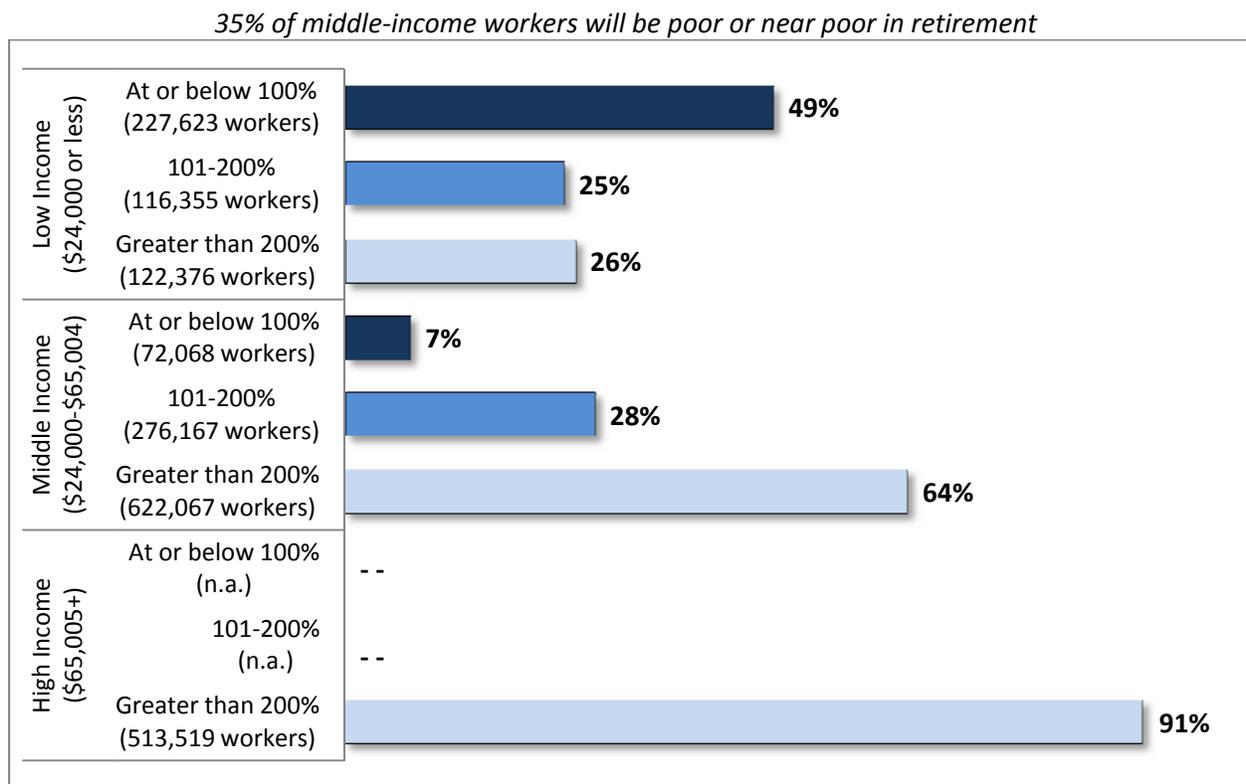
Future Elderly Poverty Rates for Households Nearing Retirement

To get a look at what the immediate future holds, a separate set of projections is done focusing on workers age 50-64. Overall, we find that 37 percent, or close to 750,000 of these workers will be poor or near poor in retirement. Conversely, 63 percent are expected to retire with assets above 200 percent of the federal poverty threshold.

Figure 4 breaks down the retirement readiness of older workers by personal income category. Not surprisingly, the risk of being poor or near poor in retirement is strongly correlated with wage level; nearly 76 percent of workers in the bottom 25 percent of the income distribution will be poor or near poor in retirement. However, a significant number of middle class workers could also face severe

hardship in retirement. Thirty-five percent of workers currently earning $24,001-$65,004 are at risk of being poor or near poor in retirement.

Figure 4: Projected retirement income as a percent of the NYC poverty threshold by personal income category, workers ages 50-64

35% of middle-income workers will be poor or near poor in retirement

Low Income ($24,000 or less)	At or below 100% (227,623 workers)		49%
	101-200% (116,355 workers)		25%
	Greater than 200% (122,376 workers)		26%
Middle Income ($24,000-$65,004)	At or below 100% (72,068 workers)		7%
	101-200% (276,167 workers)		28%
	Greater than 200% (622,067 workers)		64%
High Income ($65,005+)	At or below 100% (n.a.)	- -	
	101-200% (n.a.)	- -	
	Greater than 200% (513,519 workers)		91%

Source: See Table 1. Note: Totals may not add up due to rounding. Income distribution thresholds were calculated from the sample of 25-64 year old workers. Low, middle and high income categories are defined as the bottom 25th, middle 50th, and top 25th percentiles of the total personal earnings distribution, as calculated from the SIPP; see appendix for further details. - - denotes that the cell size or sample size was not large enough to draw any meaningful conclusions about this particular population.

This particular analysis shows that being a middle class earner does not ensure adequate retirement income if a worker has insufficient savings to keep them above the poverty threshold when they retire. Moreover, since retirement benefits are so closely tied to employers, employer characteristics such as firm size and industry, and employee characteristics such as employment status, also affect whether or not a worker is offered a retirement plan at work, and if so the type of retirement plan they are offered—both of which we have already shown are crucial to retirement income adequacy.

For example, in the New York metropolitan area, 26 percent of workers in the Financial, Investment, or Real Estate (FIRE) sector have a DB plan whereas 60 percent of workers in Public Administration have a DB plan.[18] In general, public sector employees tend to have lower wages than their private sector counterparts but more generous pension benefits. A recent study[19] showed that state government employees earn 11 percent less and local government employees earn 12 less than comparable private-

sector workers. However, if the value of non-wage benefits is included, the compensation differential falls to 6.8 percent for state government workers and 7.4 percent for local government workers.

Working past age 65 may improve the findings of this report to a degree, however the marginal increases gained through increased Social Security benefits or the decreased savings needed over a shorter period of retirement, cannot make up for a lack of asset accumulation over a person's lifetime. A report by the Employment Benefits Research Institute (EBRI) estimates that among Baby Boomer and Generation X households, those in the bottom 25% of the pre-retirement income distribution would need to defer retirement age to 84 before 90 percent of the households would have a 50 percent probability of having adequate retirement income (VanDerhei & Copeland, p. 1, 2011).[20] The middle 50% would need to defer retirement until age 75 to reach the same threshold (Ibid., p. 14, Figure 8).

Recent analysis also shows that poverty risk typically increases as retirees get older. The oldest retirees, or those over age 80, are 30% more likely to be poor than the young old (age 65-69).[21] Englehart and Gruber (2004) found that depressed earnings, asset values and increases in health care costs will boost future old age poverty rates.[22] Therefore, the predictions of this report are optimistic because forecast poverty rates are based on projected retirement income for the very "youngest" old, or those age 65.

Box 1.
Calculating Assets Available in Retirement

The table below illustrates the methodology behind our conversion of current assets and liabilities into a projected stream of income for retirement. Since the income stream available in retirement differs significantly by plan type, we use the asset values of an average 55 year-old worker with a DB plan and a DC plan. For further detail, please consult the methodology section at the end of the report.

Table 1. Average Assets Available in Retirement for a 55 Year-Old Male in the New York Metropolitan Area by Primary Plan Type

	Primary Retirement Plan: DB	Primary Retirement Plan: DC
Assets		
Cash and Investments	$160,638	$110,811
Home Equity Total	$122,826	$105,043
Retirement Savings	$27,747	$86,199
Liabilities	($5,263)	($20,649)
Net Worth (Assets-Liabilities)	$305,948	$281,404
Projected stream of income from net worth		
Yearly Growth rate (including 2.5% yearly inflation adjustment)	3.97%	3.97%
Years until retirement	10	10
Final Net Worth (Net worth*(1+0.0397*10))	$427,410	$393,121
Annuity value	$2,757	$2,536
Monthly income from DB plan		
Current earnings	$50,771	$76,525
Yearly Growth rate (including 2.5% yearly inflation adjustment)	3.40%	3.40%
Forecast final earnings (current earnings*(1+0.034*10))	$68,034	$97,918
Tenure at Current Job	17	14
Years Until Retirement at Age 65	10	10
DB plan income stream upon retirement (0.015*final earnings*(tenure+10))	$27,264	$0
Monthly income stream from DB plan	$2,272	$0
Monthly income from Social Security		
Average Indexed Monthly Earnings (AIME)	$5,670	$8,160
Primary Insurance Amount (PIA)	$2,044	$2,418
Total Projected monthly income	$7,073	$4,953
Poverty Threshold	$1,423	$1,423
Disposable Income (Projected monthly income - $100 Medicare Premium - poverty threshold)	$5,550	$3,430
Disposable Income (as a multiple of the poverty threshold)	490%	341%
Source: 2008 Survey of Income and Program Participation (SIPP) Panel.		

Conclusion

The consequences of declining sponsorship and the erosion of household savings are higher rates of poverty and less ability for workers to maintain their standard of living in retirement. Workers of all ages and income groups in New York State metropolitan areas are affected. Seventy-four percent of low income workers nearing retirement will be poor or near poor at age 65. In addition, 35 percent of middle income workers will be poor or near poor. These rates are optimistic because for most people income declines and expenses increase as they age, meaning that retirees age 75 and above face a more dismal reality. The only workers protected from a predicted downturn in living standards are the diminishing number of workers with traditional DB plans.

The findings of this report suggest that the decline in sponsorship and the increase in 401(k)-type plans threaten to jeopardize the retirement security of New York State metropolitan residents. If these trends do not change, there will be a greater number of retirees living in a chronic state of want due to a severe downward pressure on their living standards.

Policies that help workers gain access to employment based retirement savings vehicles to supplement their Social Security benefits may reverse some of the erosion in future retirement income.

Methodology Appendix

For the purposes of this study we use **data** from waves 3 and 4 of the **2008 panel of the Survey of Income and Program Participation**. Specifically, we use data from the Retirement Expectations module in wave 3 of the 2008 SIPP panel, as well as data from the Assets and Liabilities, Real Estate, Stocks and Mutual Funds, Value of Business, Rental Properties, Interest Earning and Other Financial Assets modules in wave 4 of the 2008 SIPP panel. The reference period is different for wave 3 and wave 4. The data for these modules was collected in the 4th reference month for each rotation (from April 2009-July 2009 for wave 3, and August 2009-November 2009 for wave 4). Because waves three and four are four months apart, their samples are not identical. Wave three contains 95,252 observations, while wave four contains 91,219 observations. The merged data set has 84,994 observations. There were 10,258 observations in Wave 3 that were not in Wave 4. There were 6,225 observations in Wave 4 that were not in Wave 3.

Since the merged data set drops a number of observations, it does not exactly mimic population numbers in the general population. For example, the weighted population count for the US is 301 million for wave 3 alone, and 302 million for wave 4 alone. But the merged sample represents 282 million, which is less than the 301 million actually in the US population. Therefore, we had to choose which weights to use. We use weights from the fourth reference month of wave 4 data for the merged sample following the advice of statisticians at the SIPP. The logic behind this choice is that since there is attrition in the sample, the wave 4 sample reflects the population that remained in the sample as of November 2009.

The working sample is limited to civilian residents of NY State Metropolitan areas, ages 25-64 who stated that they worked at some point in the reference period (the past four months) and who had positive earnings; it also excludes unpaid family workers and workers in the agriculture, forestry, and fishing sectors.

Respondents in the sample were asked about the value of their assets. This is the main value of the SIPP data over other micro data. The SIPP sample gives us a snapshot of earnings and assets for workers aged 25-64 in 2009. **Assets** include non interest earning checking accounts (jointly owned and solely owned), interest earning accounts (jointly owned and solely owned), bonds and securities (jointly owned and solely owned), savings bonds (solely owned), equity in stocks and mutual funds (jointly owned and solely owned), cash value of life insurance policies, equity in other financial investments, market value of IRA / KEOGH accounts, the value of solely owned retirement DC accounts, the equity in rental properties not on the land of residence jointly owned and solely owned, home equity (adjusted for share of ownership), mobile home (adjusted for share of ownership), other real estate (adjusted for share of ownership), business equity (adjusted for share of ownership), and money owed to the respondent for the sale of a business. We then subtract the debt owed jointly and solely for loans, store bills/ credit cards, and other debt. This gives us a measure of **current net worth**.

We decided not to forecast earnings growth and growth in assets and debt by choosing among competing macroeconomic forecasting models; instead, we based our estimates of earnings growth and growth in assets and debt on the recent past.

We use this data to forecast **final net worth** and earnings when the workers reach age 65. In order to forecast final net worth, we run a regression of current net worth on social and economic characteristics including age interacted with an indicator for three age categories: 25-44, 45-54, 55-64.The estimated

coefficient on age is the amount that net worth increases each year a person ages, and this coefficient differs for each of the age categories. Moreover, the value of the coefficient divided by the average value of net worth for each age category yields the yearly growth rate of net worth that would attain for a typical worker following the age profile of net worth. We then apply this yearly growth rate to current net worth (plus a 2.5% yearly inflation adjustment) for each year a person lives until they reach age 65. The growth rates we get are 5.7% for 25-44 yr old workers, 4.4% for 45-54 yr old workers, and 3.97% for 55-64 yr old workers. For workers whose current net worth is zero or negative, final net worth is calculated as $1 times the growth rate plus the current net worth (if we applied the growth rate to current net worth, their final net worth would get progressively more negative).

We then convert the value of final net worth into a monthly **annuity**. The annuity formula for a single life annuity (no beneficiaries, and no left over value upon death) is

$$P = R\left[\frac{1-(1+i)^{-n}}{i}\right] = R \cdot a_{\overline{n}|i}$$

Where P is the present value of the annuity, R is the periodic annuity payment, i is the interest rate and n is the number of payment periods. We use the Fidelity Guaranteed Income Calculator to derive the annuity value of different levels of future net worth for a male (and separately, for a female) age 65 who was born on June 1, 1944, and lives in New York. This calculation is done for males and females separately because of their different life expectancies (different value of n). Based on the R we get from the Fidelity Guaranteed Income Calculator, we calculate the value of **a** for males and females, which is 155.03 for males and 165.29 for females for a present value of $100,000. According to the US Center for Disease Control (publication in 2010 using 2007 data), life expectancy at age 65 for males is 17.2 years, while for females it is 19.9 years. Because the life expectancy estimates used by the Fidelity Guaranteed Income Calculator are not disclosed, we calculate the annual rate of return on the annuities offered using our life expectancy estimates. These yield annual interest rates in the range of 3.5-3.9% depending on gender as of July 21, 2011. In reality, the annual interest rate offered by commercial annuity providers is lower than this estimate for a number of reasons. One, annuity companies assume longer life expectancy because of adverse selection (they recognize that individuals who want to buy an annuity know they are likely to live longer than the average individual). Two, a commercial annuity provider is a for-profit entity, and they will require a sales or load fee. It is also worth noting that the annual interest rate on annuities is not inflation protected, meaning that the real rate of return will fall as a person ages.

We calculate the **income stream from a DB plan** as final earnings * 1.5% * the number of years of tenure through retirement (tenure so far + years to retirement). This is divided by 12 to convert it to a monthly stream of income. We assume that all workers who currently participate in a DB plan will remain in such a plan until retirement – which is optimistic. In order to forecast **final earnings**, we run a regression of current earnings on social and economic characteristics including age interacted with an indicator for three age categories: 25-44, 45-54, 55-64. The estimated coefficient on age is the amount that earnings increase each year a person ages, and this coefficient differs for each of the age categories. Moreover, the value of the coefficient divided by the average value of earnings for each age category yields the yearly growth rate of earnings that would attain for a typical worker following the age profile of earnings. We then apply this yearly growth rate to current earnings (plus a 2.5% yearly inflation adjustment) for each year a person lives until they reach age 65. The earnings growth rates we get are 4.2% for 25-44 yr old workers, 3.6% for 45-54 yr old workers, and 3.4% for 55-64 yr old workers.

We also compute a forecast of monthly **Social Security benefits** for each respondent. We use the worker's final monthly earnings to construct the **Average Indexed Monthly Earnings (AIME)**. This assumes that the wage indexed earnings for the 35 highest earning years all yielded the same value – the final earnings. This assumption overstates workers' AIME and therefore yields higher social security benefits than would actually accrue. The **Primary Insurance Amount (PIA)** is calculated using the 2009 bend points, where PIA=0.9*(AIME between 1-$744)+ 0.32*(AIME between $744 and $4483)+ 0.15*(AIME above $4483). The PIA *is* the Social Security monthly benefit.

The **forecast total monthly income** in retirement is the sum of the monthly annuity, the monthly DB income stream (if the respondent's primary plan is a DB plan) and the Social Security monthly benefit, less $100 for part B Medicare premium obligations. This constructed measure of monthly income upon retirement is then compared to a poverty threshold monthly income for NYC workers, to gauge how each respondent in the sample will fare when they reach age 65 and retire. We use the annual poverty threshold measure for a single person published by the NYC Center for Economic Opportunity. This figure is $1,138.5 ($13,662 / 12). It is slightly higher than the Federal poverty threshold to take into account the higher cost of living in NYC.

The **deficit fraction** for each worker is calculated as the forecast total monthly income divided by the monthly value of the poverty threshold, and the result is multiplied by 100. When the deficit fraction is 100%, that means that the respondent's total monthly income is just equal to the poverty threshold. We refer to individuals whose deficit fraction is at or below 100% as **poor**. Individuals whose deficit fraction is between 100-200% are considered **near poor**, while those whose deficit fraction is above 200% are considered to have **adequate resources** for retirement.

Geographical Coverage of the Data
The smallest geographical unit available in the SIPP data is metropolitan areas in New York. Thus, our analysis of retirement plan participation by plan type, as well as any estimates of the retirement deficit (which come from SIPP data), are representative of residents in metropolitan areas of NY state. Metropolitan areas in NY include the following counties: Suffolk, Nassau, Westchester, Rockland, Orange, Duchess, Putnam, Broome, Chautauqua, Erie, Niagara, Monroe, Genesee, Ontario, Cayuga, Onondaga, Rensselaer, Saratoga, Oswego, Albany, Madison, Schenectady, Oneida, Herkimer, Washington, Wayne, Orleans, Tioga, and Warren Counties. These are in addition to Bronx, Queens, Richmond, Kings, and New York City counties, which make up New York City. New York City residents dominate the data – they constitute 46% of the population in NY state metropolitan areas. So even though it is not possible to isolate New York City in the SIPP data using a sample of residents of New York metropolitan areas produces a good approximation of the retirement assets and needs of New York City residents.

Appendix

Table 2. Adjusted Deficit Table for Assets Inflated by 20%

Age Group	Population	Poor *At or Below NYC Poverty Threshold* *($13,662 or below)*	Near Poor *100% to 200% of NYC Poverty Threshold* *($13,663-$27,324)*
25-44	3,070,705	28%	29%
45-54	1,797,661	18%	22%
55-64	1,157,600	12%	22%

Source: See Figure 1. *Notes:* Totals may not add up due to rounding. See the Methodology Appendix for full details.

Table 3. Adjusted Deficit Table Using the Federal Poverty Threshold

Age Group	Population	Poor *At or Below Federal Poverty Threshold* *($11,161 or below)*	Near Poor *100% to 200% of Federal Poverty Threshold* *($11,162-$22,322)*
25-44	3,070,705	18%	34%
45-54	1,797,661	15%	20%
55-64	1,157,600	8%	20%

Source: See Figure 1. *Notes:* Totals may not add up due to rounding. See the Methodology Appendix for full details.

Endnotes

[1] These are workers between the ages of 50 and 64.

[2] This refers to employer sponsored defined benefit (DB) or defined contribution (DC) 401(k)-type plans

[3] Saad-Lessler, J., Ghilarducci,T., and L. Schmitz. 2012. "Are New Yorkers Ready for Retirement? Trends in Plan Sponsorship, Participation, and Preparedness." New York City: New York City Comptroller's Office Budget & Policy Bureau.

[4] Hiltonsmith, Robert. 2010. "The Failure of the 401k: How Individual Retirement Plans are a Costly Gamble for American Workers." New York: Dēmos.

[5] New York State metropolitan areas include all persons living in urban areas of NY State, or 80% of the population. 46% of this population lives in New York City. See the Methodology Appendix for a complete listing of counties included in this regional area.

[6] The NYC adjusted poverty threshold is calculated by the NYC Center for Economic Opportunity. See "Policy Affects Poverty: The CEO Poverty Measure, 2005-2009." March 2011, for more information. Available at: http://www.nyc.gov/html/ceo/downloads/pdf/poverty_measure_2011.pdf

[7] US Census Bureau's 2008-2010 American Community Survey 3-Year Estimates of poverty for the New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area. Poverty rates available at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_3YR_GCT1703.US40PR&prodType=table.

[8] Note that the new Supplemental Poverty Measure released by the US Census Bureau includes much higher estimates of nationwide elderly poverty. The SPM estimates that 15.9 percent of elderly were living in poverty nationwide in 2010. See Short, K. 2011. "The Research Supplemental Poverty Measure: 2010." Washington D.C.: The US Census Bureau. Available at http://www.census.gov/hhes/povmeas/methodology/supplemental/research/Short_ResearchSPM2010.pdf

[9] US Census Bureau's analysis of poverty rates by state using the Current Population Survey. Available at: http://www.census.gov/hhes/www/cpstables/032010/pov/new46_185200_06.htm

[10] Borrowman, M. 2011. *Forthcoming:* "Understanding Elderly Poverty in the United States: Alternative Measures of Elderly Deprivation." New York: Schwartz Center for Economic Policy Analysis.

[11] Elder Economic Security Initiative's report, "The Elder Economic Security Standard Index for New York" Available at http://www.wowonline.org/ourprograms/eesi/state-resources/documents/NYElderIndexFINAL_Red.pdf

[12] The CEO measure is based off of recommendations from the National Academy of Science. The NAS has been integral in reforming the official poverty measure, or the Supplemental Poverty Measure, which was released on November 7, 2011.

[13] See the Elder Economic Security Initiative's report, "The Elder Economic Security Standard Index for New York", for specifics on specifics on variations in elder household spending by New York geographic areas and circumstance. Available at http://www.wowonline.org/ourprograms/eesi/state-resources/documents/NYElderIndexFINAL_Red.pdf

[14] For an evaluation of the retirement income prospects of California workers using the same methodology see Allegretto, S. A., Nari R., J. Saad-Lessler and L. Schmitz. 2011. "California Workers' Retirement Prospects." In Nari Rhee, ed., Meeting California's Retirement Security Challenge. Berkeley, California: UC Berkeley Center for Labor Research and Education, pp. 21-41.

[15] We chose to retire our sample of workers at age 65 because the majority of workers choose to retire before the full-benefit retirement age for Social Security. Research shows that the average retirement age is currently 64 for men and 62 for women. See Munnell, Alicia. 2011. "What is the Average Retirement Age?" Brief 11-11. Chesnut Hill, MA: Center for Retirement Research at Boston College.

[16] The NYC adjusted poverty threshold is calculated by the NYC Center for Economic Opportunity. See "Policy Affects Poverty: The CEO Poverty Measure, 2005-2009." (March 2011), for more information. http://www.nyc.gov/html/ceo/downloads/pdf/poverty_measure_2011.pdf

[17] We conduct the same analysis using the US Federal poverty level ($11,161), and find that results are not much different. Refer to Table 3 in the appendix for a tabulation of those findings.

[18] See Saad-Lessler, J., Ghilarducci,T., and L. Schmitz. 2012. "Are New Yorkers Ready for Retirement? Trends in Plan Sponsorship, Participation, and Preparedness." New York City: New York City Comptroller's Office Budget & Policy Bureau, for a complete breakdown of sponsorship by plan type and other social, economic, and industry characteristics.

[19] Bender, K.A. and J.S. Heywood. 2010. "Out of Balance: Comparing Public and Private Sector Compensation over 20 Years." Center for State and Local Government Excellence and National Institute on Retirement Security.

[20] VanDerhei, J. & Copeland, C. 2011. "The impact of deferring retirement age on retirement income adequacy." EBRI Issue Brief No. 358. Washington, DC: Employment Benefits Research Institute. http://www.ebri.org/pdf/briefspdf/EBRI_IB_06-2011_No358_Defr-Ret.pdf.

[21] "Income of the Aged Chartbook, 2008: Social Security Administration Office of Research, Statistics, & Policy Analysis, 2010. http://www.ssa.gov/policy/docs/chartbooks/income_aged/2008/iac08.html#aggregate

[22] Engelhardt, G.V. and J. Gruber. 2004. "Social Security and the Evolution of Elderly Poverty", Working Paper 10466, National Bureau of Economic Research.