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MONITORING POVERTY AND WELL-BEING IN NYC

THE PERSISTENCE OF POVERTY IN NEW YORK CITY

A Three-Year Perspective
from the Poverty Tracker

FALL 2016

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SUMMARY

This is the fourth in a continuing series of reports that document key findings of the Poverty Tracker, a quarterly survey tracking a fixed panel of approximately 2,000 New York City residents.

As noted in earlier reports, typical surveys of poverty take an annual snapshot based on the federal government's official, income-based measure. Such snapshots suffer two flaws. First, they fail to capture the full extent of disadvantage. Second, these snapshots are static and fail to capture the dynamics of disadvantage, specifically, how deprived households cope—or fail to cope—with circumstances over time. The Poverty Tracker overcomes both flaws. It surveys residents about a range of hardships and health problems, in addition to assessing income-based poverty. It also tracks the same families, quarter after quarter, yielding a dynamic picture of poverty and deprivation in New York City.

The first two reports focused on income, wealth and health. The third report, in spring 2016, focused on prevalence and persistence of severe disadvantage from one year to the next. This report focuses on the dynamics and persistence of income poverty, material hardship and health problems using data from three annual surveys that roughly cover from 2012 to 2014.

INCOME

The Poverty Tracker deems respondents to be poor when their annual income is below the Supplemental Poverty Measure threshold. This measure compares individual or family income to a poverty line based on expenditure data for basic necessities. The Supplemental Poverty Measure is a more accurate measure of poverty than official statistics because it takes into account the high cost of living in New York City, and also counts many government benefits that aren't counted in the official poverty measure. According to the latest Poverty Tracker data, a full 23% of adults in New York are poor by this measure.

HARDSHIP

The Poverty Tracker also collects data on severe material hardships. New York City residents are deemed severely materially deprived when, regardless of whether their income exceeds the poverty threshold, they regularly cannot afford adequate food, medical care, utilities or rent. By this measure, 36% of New Yorkers suffer severe material hardship in any given year.

POOR HEALTH

Lastly, about 25% of city residents reported being in poor health or suffering from a health condition that limits their ability to participate in the workforce.

By these measures, the Poverty Tracker estimates that roughly half of all New Yorkers are disadvantaged in any given year—meaning they suffer from low income, material hardships and/or poor health.

PERSISTENCE

The Poverty Tracker also examines the persistence of disadvantage across years. At any moment, the survey estimates that nearly a quarter of New Yorkers live in poverty. Although households flow in and out of poverty, about 10% of New Yorkers remain poor from one year to the next. In contrast, approximately 36% suffer one or more material hardships in any one year, while more than 20% continue to suffer hardships from one year to another. Hardship appears to be a far more persistent disadvantage than poverty—a finding that has substantial implications for determining the best choice of interventions.

This report revisits earlier conclusions about the persistence of disadvantage to determine whether they hold up, in view of analysis of the third year of survey results. Indeed, they do. For example, the most recent survey confirmed that 73% of New Yorkers suffered from at least one disadvantage at some point during the three-year survey period. A sobering 37% reported at least one disadvantage—income poverty, severe material hardship or poor health—in all three years of data collection. Below, the data is analyzed by sex, race, immigration status, education and location (borough).

SHOCKS

This report also takes up a new investigation: shocks to family well-being. Specifically, the Poverty Tracker collects data on five types of shocks: financial, relationship dissolution, crime victimization or loss of property, medical events, or encounters with law enforcement (police stops or arrests). There appears to be a strong correlation between frequency of shocks and persistence of hardships. For example, 86% of those suffering from persistent hardship (hardship throughout the three years of the survey period) also suffered multiple financial shocks. In contrast, only 39% of those reporting no hardship over the three years suffered multiple financial shocks. This high correlation raises two important questions about causation: Do shocks cause hardships? Do hardships cause shocks? This report concludes with some preliminary observations about cause and effect as a prelude to further investigation in the coming years.

HIGHLIGHTS

Nearly half (47%) of New Yorkers experienced at least one spell of poverty during the three-year study period. About one in 20 (5%) experienced persistent poverty during the entire three-year period.

More than seven in 10 (73%) New Yorkers suffered from at least one disadvantage—income poverty, severe material hardship or poor health—at some point during the three-year period of the study. Nearly four in 10 (37%) reported at least one disadvantage throughout the entire period.

Nearly half of all New Yorkers are severely disadvantaged, which is defined as having income lower than what is needed for basic necessities and/or having poor health that limits participation in the workforce.

More than half (54%) experienced a hardship during at least one year of the study and nearly one in five (18%) reported a hardship during all three years.

The study found strong correlation between shocks—financial, relationship, crime, accident/illness and arrest—and persistence of hardships.

More than eight in 10 (86%) New Yorkers suffering from persistent hardship throughout the three-year period suffered multiple financial shocks. By contrast, about four in ten (39%) of those reporting no hardship also suffered multiple financial shocks.

INTRODUCTION

The Poverty Tracker captures a multi-faceted and dynamic picture of disadvantage by considering three distinct—and at times interrelated—types of disadvantage and then tracking how they change over time.

INCOME POVERTY: Annual resources (post-tax cash income plus in-kind benefits minus necessary expenditures for medical care and work expenses) that fall below a poverty line specific to New York City. Based on the Supplemental Poverty Measure, this benchmark is a better measure of poverty than official statistics, which rely only on measures of pre-tax cash income alone, because it takes into account the high cost of living in New York City as well as the full range of government benefits.

MATERIAL HARDSHIP: Chronic or acute inability to make ends meet; for example, running out of food or having utilities shut off for failure to pay bills.

POOR HEALTH: Self-reported poor health or a condition that limits the kind or amount of work one can do.

The previous report documented the prevalence and persistence of income poverty, material hardship and poor health based on two annual surveys. This report focuses on the dynamics and persistence of income poverty, material hardship and poor health using data from three annual surveys that roughly cover from 2012 to 2014.

PERSISTENCE OF POVERTY, HARDSHIP AND POOR HEALTH IN NEW YORK CITY

Although annual snapshots suggest that a minority of New Yorkers experience individual disadvantages at a single point in time, the Poverty Tracker reveals that a surprisingly high number of New Yorkers experienced poverty or other disadvantages during the three-year survey period. Poverty Tracker data identified New Yorkers who experienced none of these disadvantages, experienced one or more intermittent disadvantages during one or two years and those who were persistently disadvantaged during all three years.

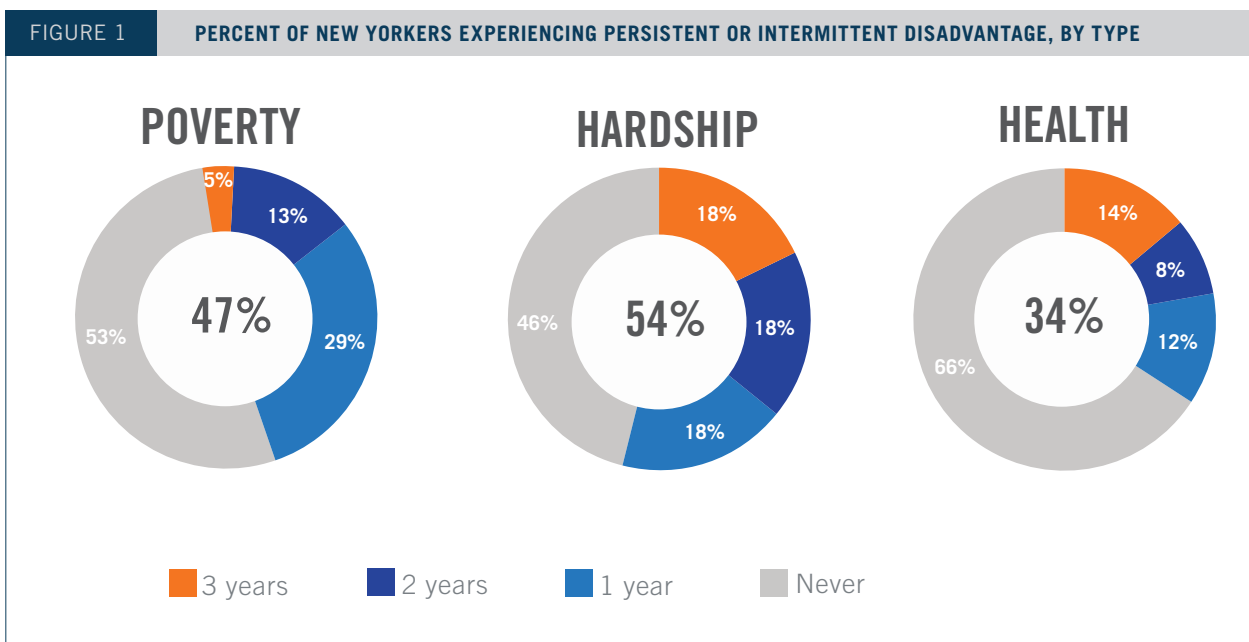
In our last report, which analyzed two years of survey data, we defined persistent disadvantage as a disadvantage that was experienced throughout the full two-year study period. Because this report presents an analysis of three years of survey data, it refers to the group experiencing one or two years of disadvantage as having experienced intermittent disadvantage and to those experiencing three years of disadvantage as having experienced persistent disadvantage.

Figure 1 shows the persistence and experience of income poverty, material hardship and poor health over time. In total, nearly half (47%) of New Yorkers experienced at least one spell of pov-

erty over the three years. A much smaller percentage (5%) was persistently poor across all three years. In each of the three years, the Poverty Tracker reported a poverty rate of approximately 23%. However, because many people experienced poverty in some years but not in others, this figure underestimates the total number of those affected at some time during the three-year period.

More than half (54%) of New Yorkers had at least one year in which they experienced a hardship and nearly one in five (18%) reported a hardship during all three years (see Figure 1). According to Poverty Tracker data, hardship is more persistent than income poverty. In any one year, about 36% of New Yorkers suffered a severe hardship. However, as with income poverty, the total number of people who experienced a severe hardship during at least one of the three years was greater than the number who had a severe hardship during any given year.

Just over one-third (34%) of New Yorkers reported poor health or a work-limiting health condition during at least one year, while a smaller but still sizable fraction (14%) reported poor health during all three years (see Figure 1). The Poverty Tracker indicates that in any single year, more than one in five (22% to 25%) New Yorkers reported being in poor health.



Across the three types of defined disadvantages, nearly three-quarters (73%) of New Yorkers experienced at least one disadvantage during the three-year period. Furthermore, more than one-third (37%) suffered at least one form of disadvantage in all three years.

1. Note that the numbers in the charts may not sum to 100% because of rounding.

POVERTY, HARDSHIP AND POOR HEALTH BY SEX, RACE AND ETHNICITY

Figure 2 shows the persistence of poverty, hardship and poor health by sex. Women were more likely to experience a spell of poverty than men (52% versus 40%), but there was virtually no difference in rates of persistent poverty across the three years by sex.

Fifty-eight percent of women and 48% of men experienced a hardship during at least one of the survey years (see Figure 2). Women were also more likely than men to experience persistent hardship, with 22% of women suffering hardship during all three years, compared with only 14% of men. Fourteen percent each of both men and women experienced poor health during all three years, and slightly more than one-third of both men and women reported poor health during at least one of the survey years.

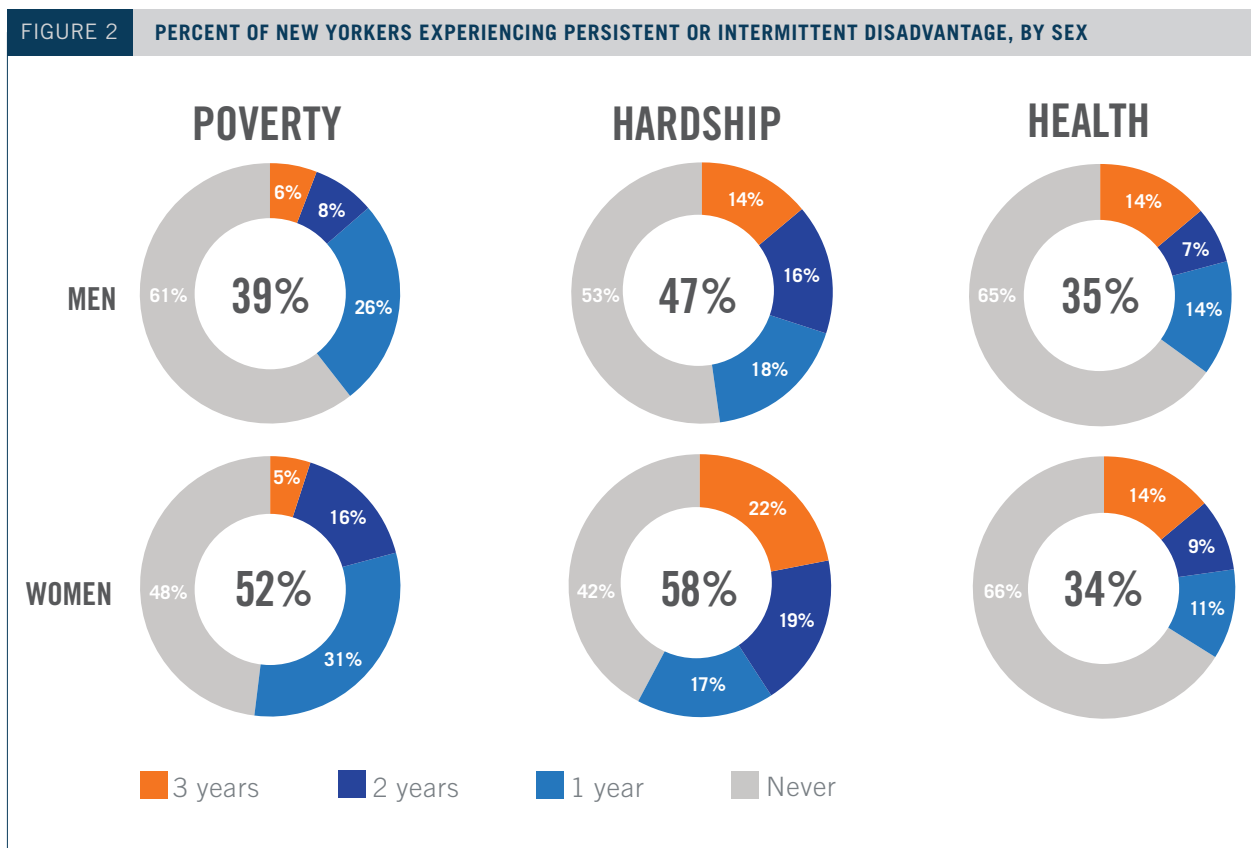
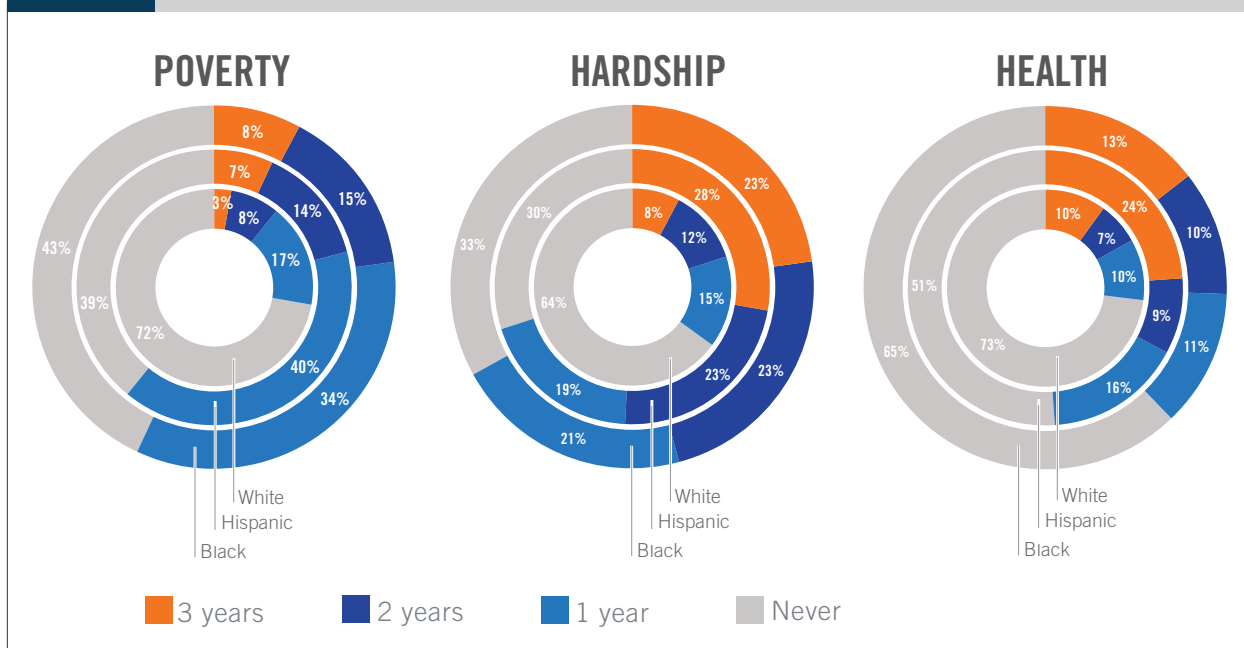


Figure 3 shows the comparable statistics for white, black and Hispanic New Yorkers. The Poverty Tracker does not currently have sufficient numbers of respondents to produce estimates for smaller racial and ethnic groups in New York City. Poverty was least common among whites, and although 28% experienced at least one spell of poverty during the three years, only 3% of white New Yorkers

FIGURE 3 PERCENT OF NEW YORKERS EXPERIENCING PERSISTENT OR INTERMITTENT DISADVANTAGE, BY RACE



were poor throughout the entire three-year period. Hispanics were the most likely to have experienced an episode of poverty (61%), and 7% were persistently poor. More than half (57%) of black New Yorkers experienced a spell of poverty, and 8% were persistently poor.

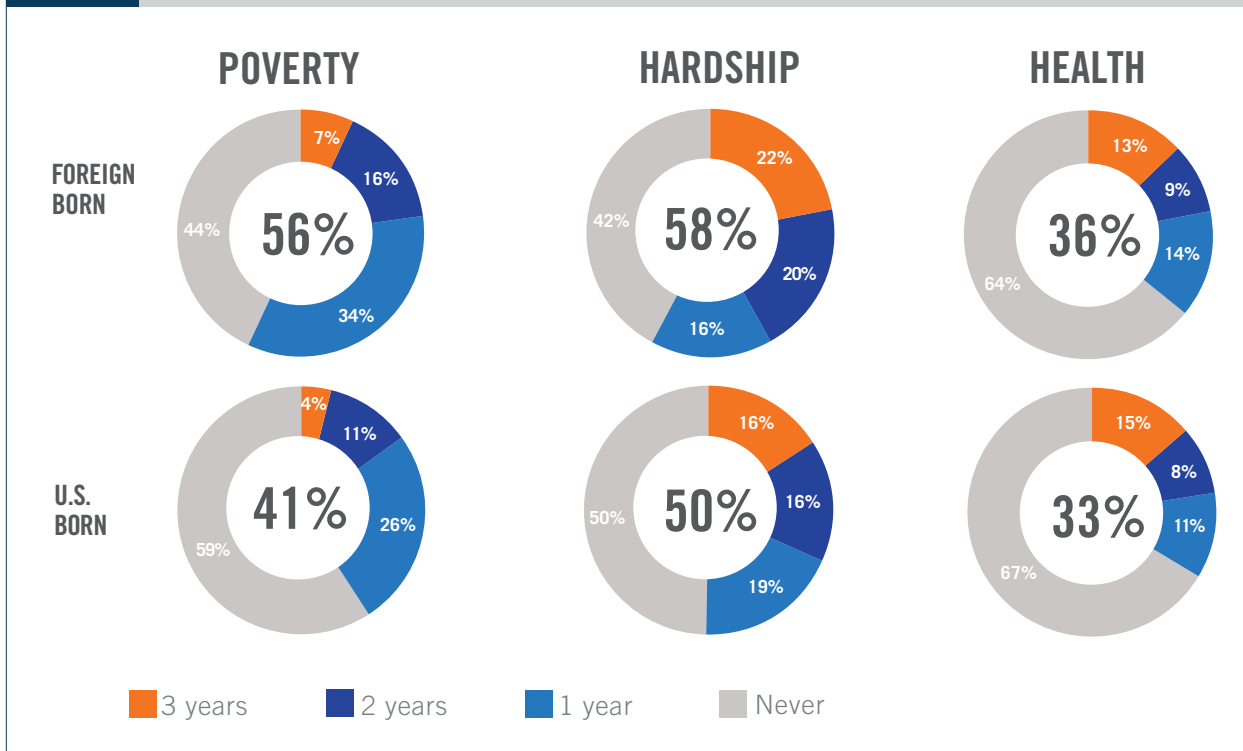
White New Yorkers were also the least likely to experience hardship or persistent hardship. Only 8% of white New Yorkers experienced a hardship during all three years, compared with 23% of black New Yorkers and 28% of Hispanic New Yorkers (see Figure 3). Although 35% of white New Yorkers experienced a hardship during at least one year, a staggering 67% of black New Yorkers and 70% of Hispanic New Yorkers experienced at least one hardship during the three years.

Hispanic New Yorkers had the highest levels of persistently poor health, with 24% suffering health challenges during all three years (see Figure 3). Rates of persistently poor health were lower for black (13%) and white (10%) New Yorkers. About half (51%) of Hispanic New Yorkers never experienced poor health, compared with about two-thirds (65%) of blacks and nearly three-quarters (73%) of whites.

Figure 4 shows persistent poverty, hardship and poor health for immigrants and nonimmigrants. Immigrants were slightly more likely than nonimmigrants to experience persistent poverty (7% versus 4%), but were substantially more likely to have been poor during at least one of the three years (56% versus 41%). Immigrants were somewhat more likely to have experienced persistent hardship (22% versus 16%) and somewhat less likely to have experienced no hardship (42% versus 50%) during this period. Immigrants were slightly less likely than nonimmigrants to suffer persistently

FIGURE 4

PERCENT OF NEW YORKERS EXPERIENCING PERSISTENT OR INTERMITTENT DISADVANTAGE, BY IMMIGRATION STATUS



poor health (13% versus 15%), but slightly more likely to report poor health during at least one of the survey years (36% versus 33%).

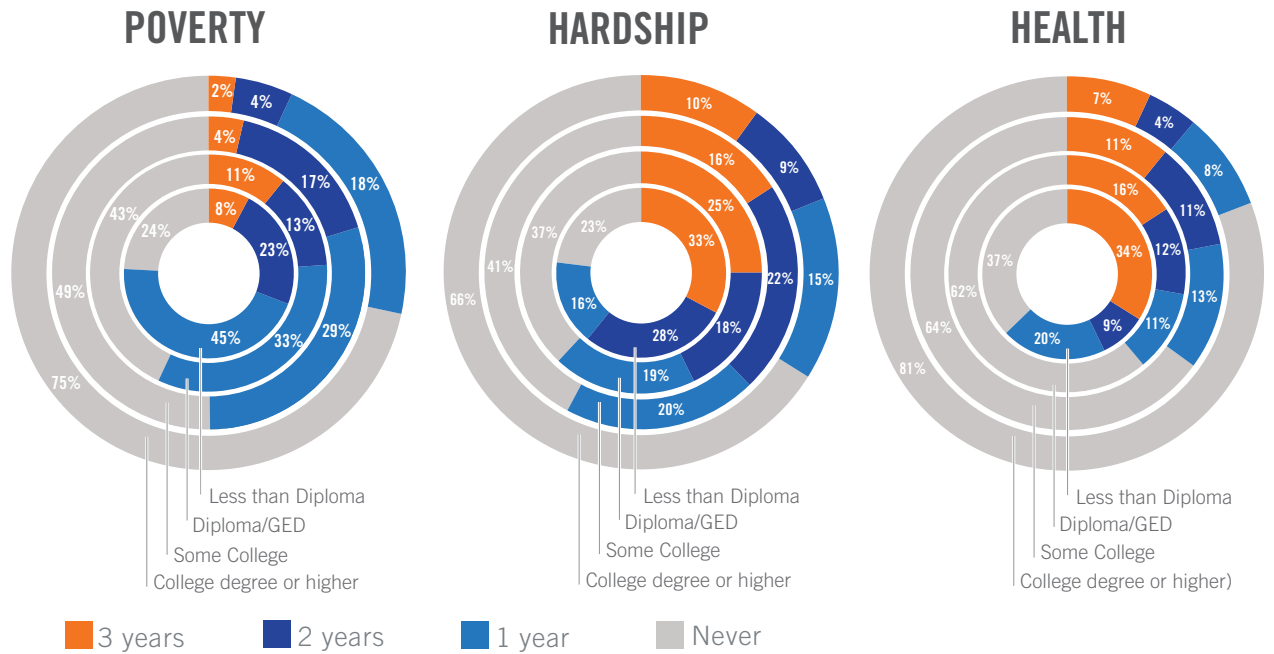
Figure 5 shows differences by respondents' level of educational attainment. As might be expected, the least educated New Yorkers had the highest levels of persistent poverty, hardship and poor health. Only 24% of those with less than a high school education avoided poverty for the entire three-year period, compared with 43% of those with a high school diploma, 49% of those with some college and 75% of those with a college degree or higher.

More than three-quarters (77%) of those without a high school diploma suffered a hardship at least once during the three years, and one in three (33%) suffered at least one hardship during all three years (see Figure 5). Nearly two-thirds (62%) of those with a high school diploma suffered at least one hardship and 25% suffered persistent hardship. Among those with some college, 58% suffered a hardship at least once and 16% suffered at least one hardship in all years. Not unexpectedly, hardship rates were lowest among the college educated—34% suffered a hardship at some point during the three years and 10% suffered persistent material hardship.

There were also steep gradients in the experience of poor health and persistently poor health by education. For instance, only 19% of those with a college education suffered from poor health at

FIGURE 5

PERCENT OF NEW YORKERS EXPERIENCING PERSISTENT OR INTERMITTENT DISADVANTAGE, BY EDUCATIONAL ATTAINMENT



some point during the survey years, compared with 63% of those lacking a high school diploma (see Figure 5). Likewise, roughly one-third (34%) of those without a high school diploma suffered persistently poor health, compared with only 7% of those with a college degree.

Figure 6 shows how disadvantage varies by age. Although persistent poverty was relatively rare among New Yorkers of all ages, young adults aged 18 to 34 were the most likely to experience it (8%). Young adults were also the most likely to experience poverty at some point during the three years (58%), while adults aged 35 to 64 were the least likely (40%).

Older adults were the least likely to experience hardship—34% of New Yorkers over 65 experienced a hardship at some point during the three years, compared with 55% of those aged 35 to 64 and 60% of younger adults (see Figure 6). Likewise, only 8% of New Yorkers over 65 experienced persistent material hardship, compared with 19% of those aged 18 to 34 and 21% of those aged 35 to 64.

In contrast, older adults were more likely to have health problems. Only 3% of the youngest adults suffered persistent poor health, compared with 20% each of New Yorkers aged 35 to 64 and over age 65 (see Figure 6).

FIGURE 6

PERCENT OF NEW YORKERS EXPERIENCING PERSISTENT OR INTERMITTENT DISADVANTAGE, BY AGE

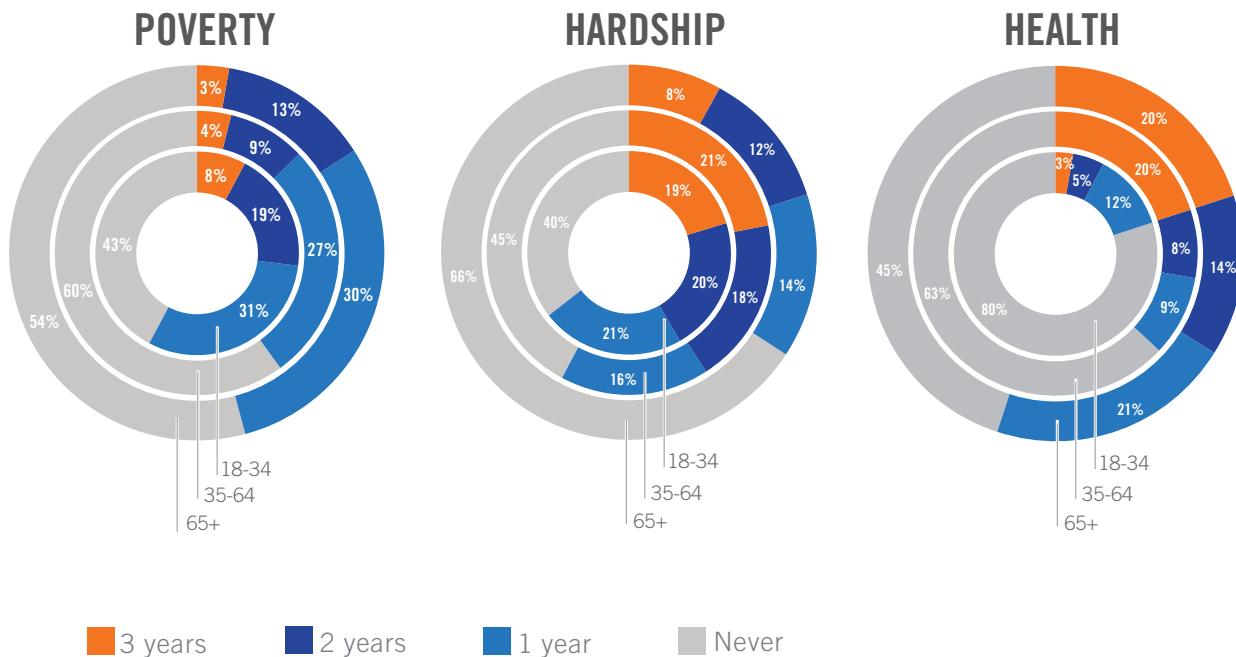


Figure 7 analyzes results across New York’s five boroughs. Persistent poverty, although still relatively rare, was highest in the Bronx (9%). More than half (55%) of Bronx residents were poor during at least one of the survey years, followed by Brooklyn (46%) and Queens (46%). Manhattan had the lowest rate, at 36%. Persistent hardship was also highest in the Bronx (28%), followed by Queens (21%), Brooklyn (15%), Staten Island (13%) and Manhattan (10%). There were some differences among the boroughs in the persistence of poor health. Between 10% and 19% of New Yorkers, by borough, reported persistently poor health (see Figure 7). The Bronx was at the high end of this range, with nearly one in five (19%) residents reporting persistently poor health.²

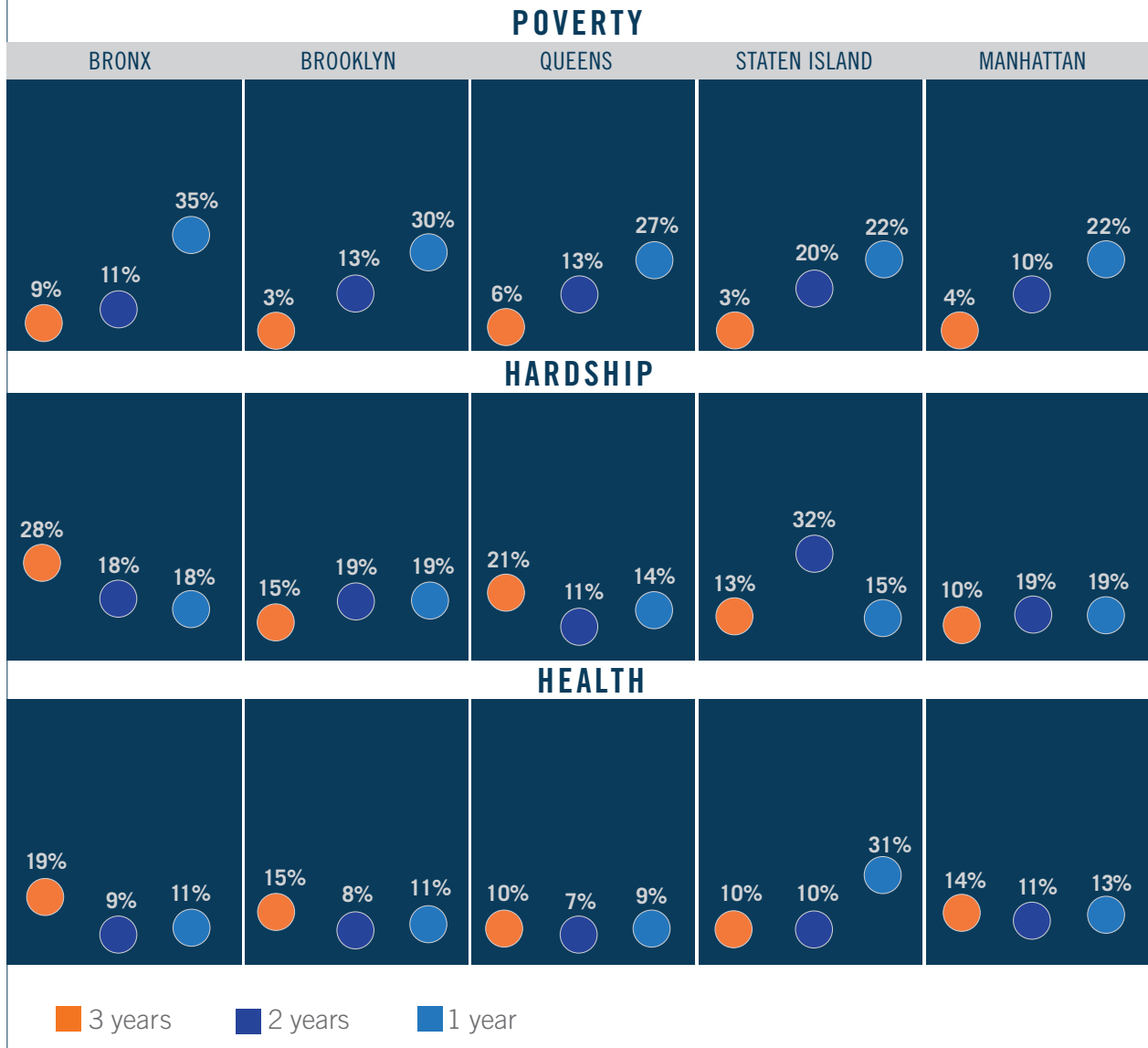
EXPERIENCES OF NEW YORKERS FACING PERSISTENT DISADVANTAGE

This section describes the types of experiences commonly faced by disadvantaged New Yorkers. The question motivating this analysis is whether New Yorkers in the most persistently dire circumstances also experience repeated “shocks” that might make it more difficult to improve their circumstances.

2. Note that the reported rates for Staten Island should be interpreted with caution in view of the small number of Staten Island households surveyed.

FIGURE 7

PERCENT OF NEW YORKERS EXPERIENCING PERSISTENT OR INTERMITTENT DISADVANTAGE, BY BOROUGH

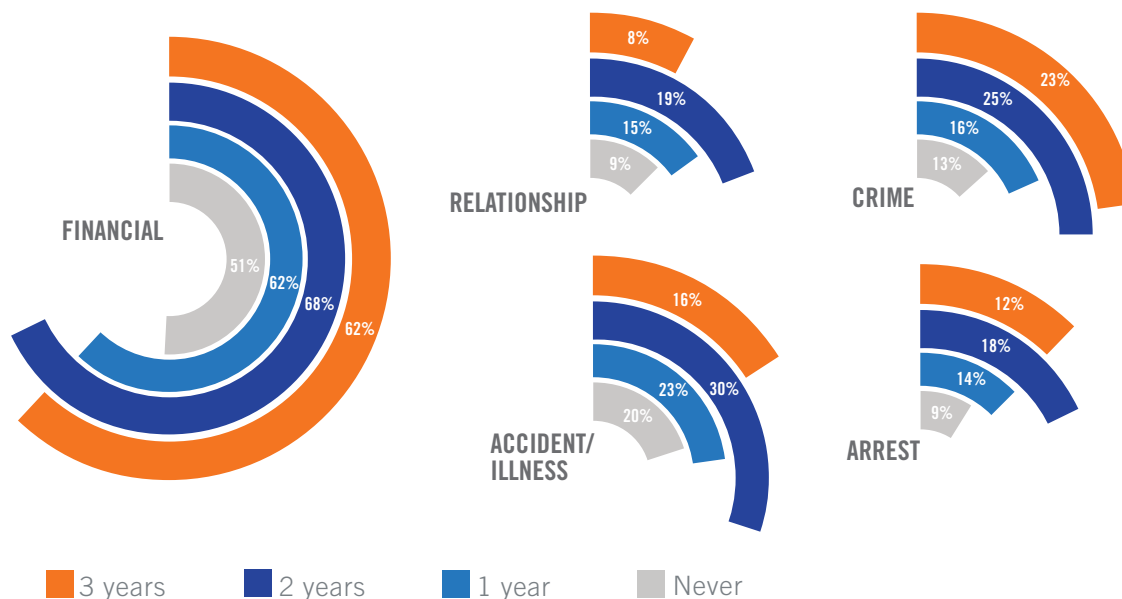


In each three-month follow-up survey, the Poverty Tracker asked New Yorkers about a series of events that they may have experienced since the last survey. These shocks comprise five categories.

- Financial: a major decrease in income, unanticipated expense or loss of public benefits
- Relationship: the end of a romantic relationship
- Crime: victimization and/or loss or damage to valuable property
- Accident/Illness: accident, illness or injury of any household member
- Arrest: police stops or arrests of any household member

FIGURE 8

PERCENT OF NEW YORKERS EXPERIENCING MULTIPLE SHOCKS, BY PERSISTENCE OF POVERTY



For each category, whether respondents experienced one or multiple instances or events during the three-year survey period reveals the extent to which more disadvantaged New Yorkers experienced repeated events that could have detrimental effects on their lives.

Figure 8 shows the experience of multiple shocks by the persistence of poverty. Those who faced intermittent levels of poverty (poverty at some point during one or two of the three survey years) were the most likely to have had repeated shocks to their income, through major expenses, drops in income or cuts to benefits. Nearly seven in 10 (68%) New Yorkers in intermittent poverty experienced such financial shocks, compared with about 5 in 10 (51%) of those who never experienced poverty.

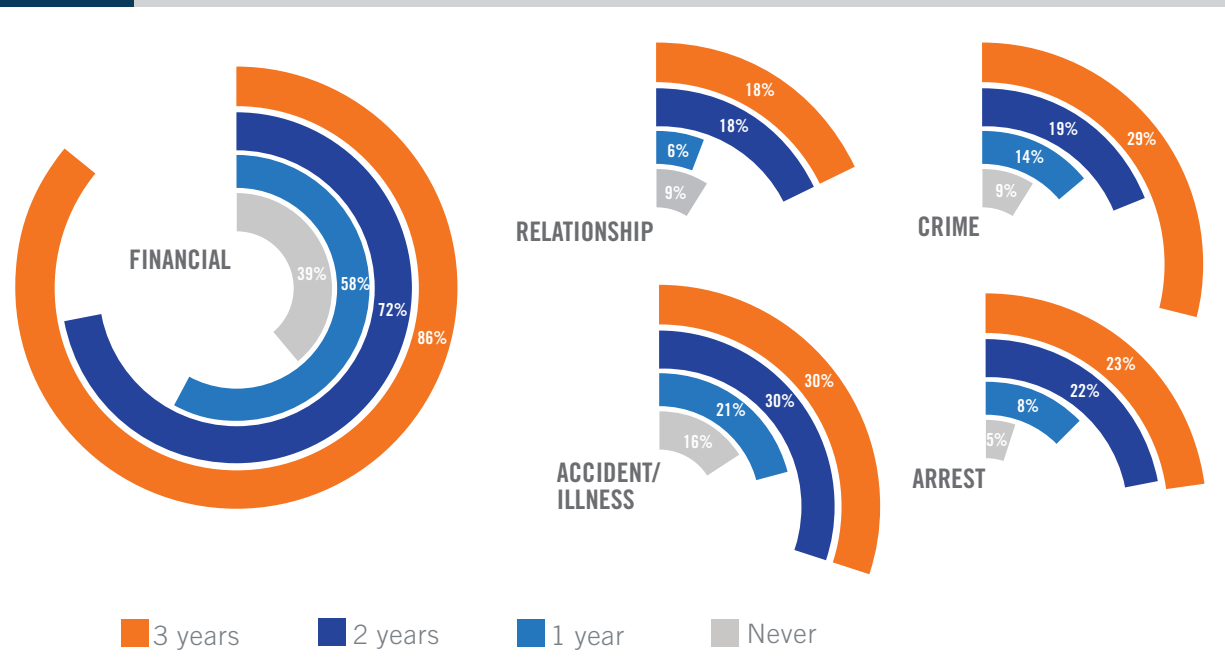
For crime victimization or loss/damage to property, those enduring two years of poverty (25%) and the persistently poor (23%) experienced the highest rate of multiple shocks, compared with 16% of those facing only one year of poverty and 13% of those who never experienced poverty (see Figure 8).

There were fewer differences in poverty persistence in relationship changes; accidents, illnesses or injuries; and police stops and arrests—although New Yorkers who had faced intermittent poverty were the most likely to have experienced multiple shocks of any kind (see Figure 8).

Figure 9 shows these experiences by persistent hardship. New Yorkers in persistent hardship were much more likely to have experienced a financial shock than those with less hardship. Fully 86% of

FIGURE 9

PERCENT OF NEW YORKERS EXPERIENCING MULTIPLE SHOCKS, BY PERSISTENCE OF SEVERE HARDSHIP



those in persistent hardship had suffered multiple financial shocks, compared with 72% of those with two years of hardship, 58% of those with one year of hardship and only 39% of those with no hardship.

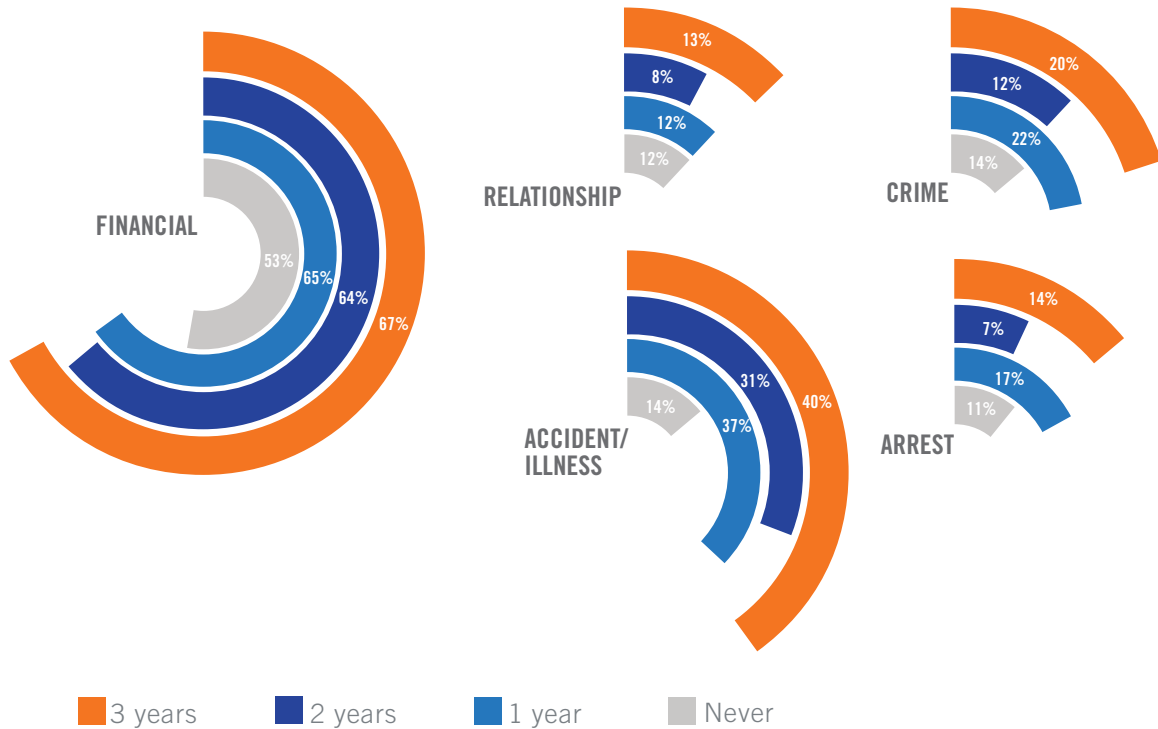
Those in hardship were also two times more likely to experience relationship dissolutions, with 18% of those with either two or three years of hardship experiencing multiple relationship dissolutions, compared with 9% of those with no hardship (see Figure 9). The persistent hardship group was also the most likely to have repeatedly suffered criminal victimization or loss/damage to property and to have been stopped by police or arrested. However, for accidents, illnesses or injuries, those who experienced persistent hardship and those who had endured two years of hardship had the same rate of multiple shocks (30%), compared with those who had endured one year of hardship (21%) and no hardship (16%).

Figure 10 shows the relationship between repeated exposure to these shocks and persistent poor health. In general, those in persistently poor health were the most likely to have been repeatedly exposed to such shocks. Two-thirds (67%) of those with persistently poor health faced repeated financial losses, compared with about half (53%) of those with no instances of poor health during the survey period.

Taken together, these results suggest that the most persistently disadvantaged New Yorkers are beset by repeated shocks to their finances and well-being.

FIGURE 10

PERCENT OF NEW YORKERS EXPERIENCING MULTIPLE SHOCKS, BY PERSISTENCE OF POOR HEALTH



CORRELATION AND CAUSATION

The results show strong correlation between the persistence of disadvantage and the frequency of shocks—that is, the more shocks, the more persistence and vice versa. Correlation does not, however, imply causation. These results do not prove a causal relationship between life events and disadvantage, nor do they indicate which way the causality might go. For ethical reasons, there are no experiments that purposely expose people to shocks or disadvantage.

In the absence of such experiments, while there can be no decisive determination of cause and effect, statistical controls do provide second-best evidence. Sophisticated statistical analyses can offer probabilities as to whether these shocks lead to disadvantage, disadvantage leads to more shocks, or—more likely—whether causation goes in both directions.

The Poverty Tracker considers income poverty, material hardships and poor health as well as the five types of shock described above. In this example, we examine the relationship between financial shocks and persistent hardship. There are three possible scenarios:

- Shocks deepen persistent hardship
- Persistent hardship triggers shocks
- Movements in both shocks and hardship are driven by invisible (or under-measured) third factors.

Using Poverty Tracker data collected quarterly and sophisticated statistical models (specifically cross-lagged models), we tested the likely direction of causation. Although the math is more complex than the equations shown here, the principle is the same.

In fact, the statistical analyses support the notion that causality runs in both directions. In other words, multiple shocks at one point in time increase the likelihood of subsequent hardship, and more hardship at a given point in time leads to a higher probability of more shocks later. This notion makes intuitive sense and suggests that protecting families from repeated exposure to multiple shocks can help prevent severe and persistent hardship.

Interestingly, when we tested whether shocks cause fair or poor health or vice versa, the evidence indicates that causality only runs in one direction—fair or poor health will likely lead to the experience of more negative shocks—but not the reverse. In other words, New Yorkers in fair or poor health are more likely to be vulnerable to experiencing multiple negative shocks in the future.

A MATHEMATICAL EXPLANATION

First, let us consider whether shocks cause persistent hardship. **Equation #1** mathematically expresses the common-sense notion that if shocks cause hardship, then previous shocks will increase the likelihood of present hardship:

$$\text{Likelihood of Present Hardship} = \beta_0 + \beta_1 * (\text{Shock at time } t_{-1}) + \beta_2 * (\text{Shock at time } t_{-2}).$$

While two lags are specified here, in theory, there could, and probably should be many more.

Statistical tools such as conventional methods of regression analysis can be used to test Equation #1 and yield estimates of β_1 and β_2 . Values of β_1 and β_2 that are close to zero argue against the hypothesis that shocks cause persistent hardship. Larger values of β_1 and β_2 support the hypothesis that past shocks likely contribute to current hardship.

The opposite hypothesis is that persistent hardship causes financial (or other) shocks. For example, a tenant's chronic inability to pay rent can lead to a major expense when the services of a lawyer become necessary to avoid eviction.

Equation #2 expresses the notion that previous hardships trigger current shocks.

$$\text{Likelihood of Present Shock} = \beta_0 + \beta_1 * (\text{Hardship at time } t_{-1}) + \beta_2 * (\text{Hardship at time } t_{-2}).$$

Large values of β_1 and β_2 support the hypothesis; values close to zero argue against the hypothesis.

Note that testing real-world probabilities requires more complex statistical methodology. These simplified equations illustrate the logic used to analyze the likelihood and directions of causation.

CONCLUSION

This fourth report, summarizing the results of Poverty Tracker data analysis from three years of the study, shows that poverty and disadvantage are highly dynamic. Although annual snapshots show that slightly more than one in five New Yorkers lives in poverty, the Poverty Tracker reveals that only about one in 20 faced persistent poverty during the three-year survey period. The flip side of this, of course, is that a much larger fraction of New Yorkers experienced poverty, hardship and/or poor health at some point during the survey.

When we look across these three dimensions—income poverty, material or financial hardship and poor health—the likelihood that someone will experience some form of disadvantage is higher still. The analysis also reveals that large fractions of New Yorkers experienced repeated shocks during the three-year study period, which may help explain why some people remain locked in persistent poverty, hardship or poor health over time.

APPENDIX

In each quarterly follow-up survey, the Poverty Tracker asked New Yorkers about a series of events that may have experienced since the last survey. The events, or “shocks” comprised five categories, each supported by data items gathered in the survey.

Financial (three items assessed). Whether someone in the household experienced

- a major decrease in income
- a major unanticipated expense
- loss of public benefits

Relationship (one item assessed). Whether the respondent

- ended a romantic relationship

Crime (two items assessed). Victimization or loss/damage to valuable property; whether someone in the household

- was the victim of a crime
- experienced loss or damage to valuable property

Accident/Illness (one item assessed). Whether someone in the household

- experienced an accident, illness or injury

Arrest (two items assessed). Police stops and arrests: whether someone in the household

- was stopped by police
- was arrested