What Influences the Success Sequence and Economic Self-Sufficiency? Findings from a Mixed-Method Study

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What Influences the Success Sequence and Economic Self-Sufficiency? Findings From a Mixed-Method Study

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Hande Inanc, Ariella Spitzer, Briana Starks, Mathematica

Submitted to:
Caryn Blitz, Project Officer
Kathleen McCoy, Project Monitor, VPD Government Solutions
Administration for Children and Families
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Project Director: Susan G. Zief
Mathematica
P.O. Box 2393
Princeton, NJ 08543-2393

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This research uses quantitative data from the NLSY97 and qualitative interviews conducted by Mathematica. The NLSY97 is sponsored and directed by the U.S. Bureau of Labor Statistics and managed by the Center for Human Resource Research at The Ohio State University. Interviews for the NLSY97 are conducted by the National Opinion Research Center at the University of Chicago. Qualitative interviews were conducted by Mathematica staff including Maya Reid, Stacie Feldman, Sarah Wagner, Macy Miller, Joshua Holbrook, Veena Prakriya, Elizabeth Mugo, Ryan Fiorito, Amelia Forman, Tiffany Waits, Erin Boyle, Amy Harris, and Giovanna Bautista Rodriguez, to whom we are grateful. We also thank the 225 participants from our qualitative interviews for their willingness to share their life stories with Mathematica's interview team.

Hande Inanc
Ariella Spitzer
Briana Starks

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Contents

Tables

Figures

Overview

The success sequence is a term discussed in the context of policy approaches for reducing poverty and improving economic opportunity for adolescents and young adults. The term refers to a series of milestones in life—most commonly including high school completion, full-time employment, and waiting for marriage to have children—that are associated with escaping poverty and joining the middle class. These milestones are described as a sequence to emphasize that their order also matters.

This is the third in a series of reports on the success sequence conducted by Mathematica for the U.S. Department of Health and Human Services (HHS). The first report (Goesling et al. 2020) reviewed existing evidence on the success sequence and found that, despite a large body of research showing that education, employment, and nonmarital childbearing are all interconnected and strongly associated with economic outcomes in adulthood, there is limited evidence on whether the order of these milestones matters.

To expand the available evidence on the success sequence, the second report investigated the relationship between success sequence milestones completed by age 30 and economic self-sufficiency indicators observed between ages 35–40 (Inanc et al. 2021). Findings from this second report showed that adolescents take diverse pathways in their transition to adulthood—not all of which align with the success sequence model. The report also revealed that adhering to the success sequence and economic self-sufficiency in adulthood is not a one-to-one relationship. Some adolescents who followed the success sequence did not reach economic self-sufficiency by their early 30s. There were other pathways that did not align with the success sequence but were associated with a similarly high likelihood of avoiding poverty and joining the middle class. All of these findings demonstrate that the success sequence alone does not determine economic self-sufficiency. This makes it all the more important to understand why some people achieve economic self-sufficiency while others on the same pathways who complete the same milestones do not achieve this economic success.

To explore and understand what influences whether someone completes success sequence milestones, completes them in order, and achieves economic self-sufficiency, HHS contracted Mathematica to conduct a third study that relied on both quantitative and qualitative data. Specifically, this mixed-methods study addressed two main research questions: (1) What are the factors associated with the sequence of milestone completion? (2) Among people who take similar pathways—those who follow the success sequence and those who do not—what are the factors associated with achieving economic self-sufficiency?

This third report uses data from two complementary sources: (1) nationally representative quantitative data from the National Longitudinal Survey of Youth, 1997 Cohort (NLSY97) and (2) qualitative data collected by the study team through online written interviews with 225 adults ages 30–35. We considered respondents as following a success sequence pathway if they either completed all milestones (high school completion, full-time employment, marriage, and childbearing) in the prescribed order or were on track to complete them in order by age 30 or by the date of their qualitative interview. We defined economic self-sufficiency as achieving middle-class status, measured by having a household income above 300 percent of the federal poverty level, adjusted for household size. To understand influences on young adults'

milestone completion and economic self-sufficiency, we identified and organized potential influences around groups of factors. In our quantitative analysis, we focused on factors observed up until age 18, such as parent and family characteristics; childhood characteristics and influences; and adolescent characteristics. In our qualitative analysis, we identified factors that emerge both during and after youth, such as personal values, family support, and economic conditions.

For the specific factors influencing the completion of each milestone, our quantitative analysis showed that parent and family characteristics were the most important category for high school completion, employment, and childbearing. However, the ways that parents and family influence individuals vary across milestones. Our qualitative interviews suggest that although a stable home environment is an important factor enabling high school completion, family values are more important for completion of the marriage milestone. Adolescent characteristics, behaviors, and relationships were also an important category explaining who completes each milestone.

The factors that partially explain who follows a success sequence pathway were similar to those that explain achievement of individual milestones. The quantitative analysis showed that parents and family, followed by adolescent characteristics, behaviors, and relationships, were again the two categories of factors that played the largest role explaining who did and did not follow a success sequence pathway. In interviews, most participants said they planned to follow a success sequence pathway, but only some of them were able to. Those who could not reported encountering barriers they had not anticipated, such as lack of parental support and health problems.

Our quantitative analysis exploring what factors explain who becomes economically self-sufficient showed that parent and family characteristics play the largest role in explaining middle-income status for both participants who followed the success sequence and those who did not. The interviews also revealed barriers to and facilitators of economic self-sufficiency. People who followed the success sequence and did not achieve economic self-sufficiency faced barriers such as mental or physical health troubles, child-care constraints, and stable but low-paying jobs. People who did not follow the success sequence and achieved economic self-sufficiency credited factors such as the support of family and social networks, postsecondary education, working their way up from entry-level jobs, and luck.

Factors explored in our quantitative analysis can partially explain differing degrees of the variance in who achieves individual milestones, the success sequence, or economic self-sufficiency. For example, with the factors explored in NLSY97, we can explain 53 percent of the variance in who graduates from high school and 24 percent of the variance in who follows a success sequence pathway. This highlights the degree to which the variance in our outcomes is driven by factors that are not captured in our quantitative data. Qualitative interviews highlight that this variance is driven both by factors not captured in quantitative data and factors that emerge in adulthood.

Based on the findings in this report, curriculum developers and program providers should acknowledge that communicating with youth about the success sequence and its association with economic self-sufficiency may not be sufficient for youth to follow it. Programming should also focus on supporting youth who face external barriers to achieving the success sequence. In addition, given our previous report (Inanc et al. 2021) and findings from this study on the diversity of pathways youth take in their transition to adulthood, curriculum developers and program providers must also account for the likelihood that

some program participants are already on a pathway that does not align with the success sequence. It is important to ensure messaging does not alienate participants who might already be completing the milestones out of order from feeling as though the curricula are not relevant to them.

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A. Introduction

The success sequence is a term discussed in the context of policy approaches for reducing poverty and improving economic opportunity for adolescents and young adults. The term refers to a series of milestones in life associated with escaping poverty and joining the middle class. It gained currency in the early 2000s and became particularly popular through Ron Haskins and Isabel Sawhill's 2009 book, *Creating an Opportunity Society*. Although the exact milestones that constitute the success sequence model and their definitions have changed and evolved over time, typically, it refers to completing high school, obtaining full-time employment, and waiting until marriage to have children. The definition of the term also emphasizes the importance of the sequencing of these milestones.

Policy approaches influenced by the success sequence theory emphasize educational programming and public awareness campaigns to spread knowledge around the importance of following success sequence milestones in order to achieve economic self-sufficiency. For example, in their book, Haskins and Sawhill (2009) argued that federal policies and programs should encourage young adults to follow the success sequence as a way to achieve self-sufficiency as adults. The success sequence has become an intentional focus of Sexual Risk Avoidance programs in the context of empowering youth to avoid sexual risk, build healthy relationships, and achieve academic success (Humes et al. 2020). The Family and Youth Services Bureau's (FYSB) federal Sexual Risk Avoidance Education Program currently requires grantees to incorporate the benefits of the success sequence into the educational programming they offer to adolescents and young adults (FYSB 2020). Despite the popularity of this term and its influence on Sexual Risk Avoidance programs, evidence on the effect of following the success sequence has been limited until recently.

This report is the third in a series of reports on the success sequence conducted by Mathematica for the U.S. Department of Health and Human Services. The first report reviewed existing evidence on the success sequence (Goesling et al. 2020). It found that, despite a large body of research showing that education, employment, and nonmarital childbearing are all interconnected and strongly associated with economic outcomes in adulthood, studies on the success sequence provide limited evidence on whether the order of these milestones matters.

The second report presented findings from a quantitative analysis using two nationally representative longitudinal data sets (Inanc et al. 2021). Specifically, it investigated the relationship between success sequence milestones (defined as high school completion, full-time employment, marriage, and childbearing) completed by age 30 and economic self-sufficiency indicators observed between ages 35–40. The analysis was informed by a technical working group of experts who served as advisors on the methods and approach used in this study.[1]

Findings from this second report showed that adolescents take diverse pathways in their transition to adulthood—not all of which align with the success sequence model. For example, some people start work before completing high school. Others get married relatively early in life, before having a full-time job.

[1] The technical working group included Katherine Bradley, John Iceland, Alexandra Killewald, Robert Lerman, Shelly Lundberg, Joseph Price, Isabell Sawhill, Jerry Regier, Wendy Wang, Brad Wilcox, and Jay Zagorsky.

Overall, the analysis found that fewer than half of young adults (43 percent) followed a pathway that aligned with the success sequence by their early 30s. This finding raises the question of why some people adhere to the success sequence model and others do not. Furthermore, findings showed that the most common combinations and sequences of milestones vary by gender, race and ethnicity, and parental level of education. The share of young adults adhering to the success sequence model also differs by these demographic characteristics. These results highlight the importance of understanding the factors and circumstances that lead young adults to the various pathways and milestone completion, and raise the following questions: Do differences in milestone completion primarily reflect differences in demographic and family background characteristics? Or do differences in personal values; environmental characteristics; childhood experiences; and adolescent characteristics, behaviors, and relationships also play a role?

The second report also showed that adherence to the success sequence and economic self-sufficiency in adulthood is not a one-to-one relationship. Young adults who completed the success sequence milestones in the prescribed order had a high chance of avoiding poverty and joining the middle class in young adulthood, but some adolescents who followed the success sequence did not reach economic self-sufficiency by their early 30s. There were also other pathways that did not align with the success sequence but were associated with a similarly high likelihood of avoiding poverty and joining the middle class. For example, young adults who completed the milestones in a different order, such as those who completed high school, got married, and had children without getting a full-time job, had a similar or greater probability of economic self-sufficiency as those who completed all milestones in the prescribed order.

All of these findings demonstrate that the success sequence alone does not determine economic self-sufficiency, highlighting the importance of understanding why some people achieve economic self-sufficiency and others do not despite similarities in pathways and milestone completion. The results taken together also raise the question of what role milestone completion plays in explaining who does and does not achieve economic self-sufficiency. For example, individuals with more highly educated parents are more likely to complete the success sequence and also more likely to achieve economic self-sufficiency. However, it is unclear how much of this finding is due to completing the success sequence and how much is due to advantages that may come with having parents who are highly educated.

To explore and understand what influences whether someone completes success sequence milestones, whether someone completes them in order, and whether someone achieves economic self-sufficiency, the U.S. Department of Health and Human Services contracted Mathematica to conduct a follow-up study that relies on both quantitative and qualitative data. Specifically, this mixed-methods study addressed two main research questions:

1. What are the factors associated with the sequence of milestone completion?
    a. What are the factors associated with completing each milestone?
    b. What are the factors associated with completing the milestones in the prescribed order of the success sequence?
2. Among people who take similar pathways, what are the factors associated with achieving economic self-sufficiency?

a. What are the factors associated with following the success sequence milestones in the prescribed order and not achieving economic self-sufficiency?

b. What are the factors associated with not following the success sequence milestones in the prescribed order and achieving economic self-sufficiency?

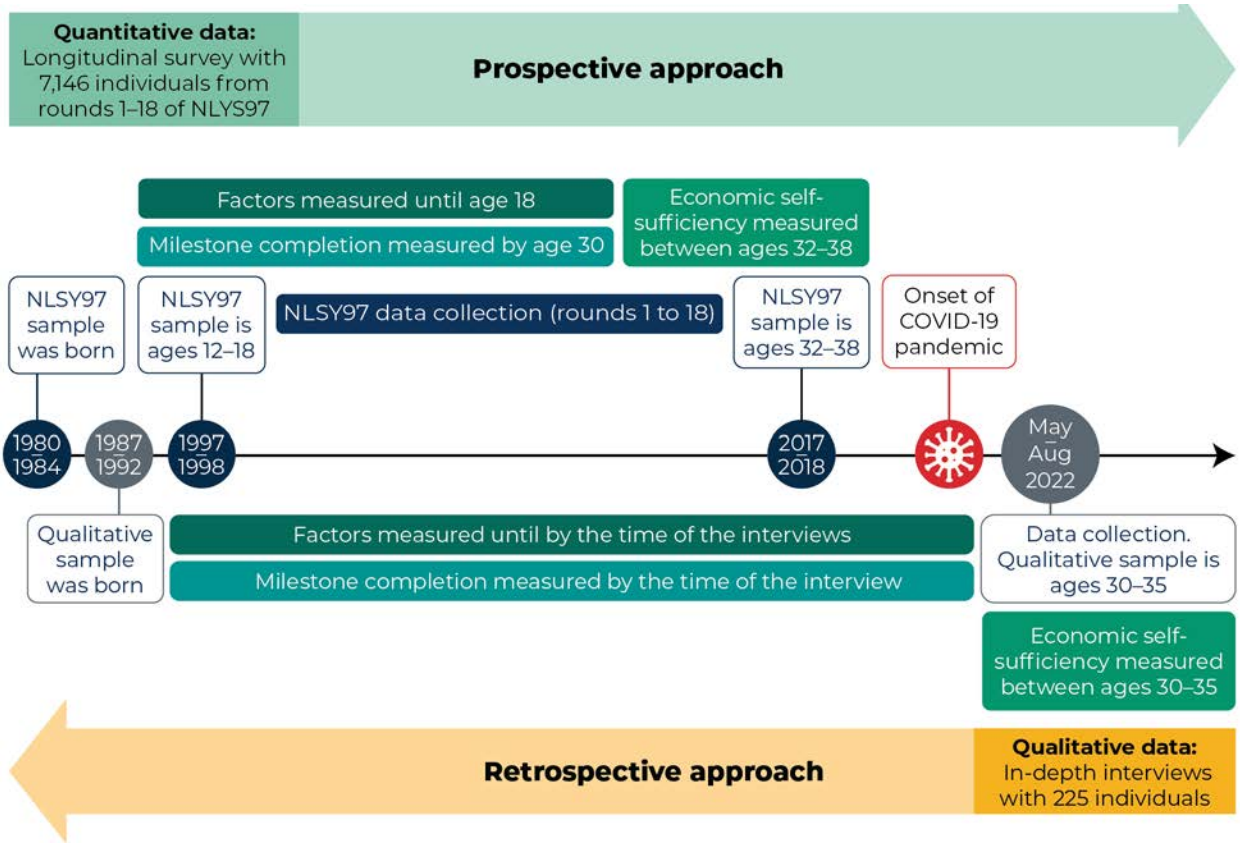
The remainder of the report is divided into four sections. We begin by describing the data and methods used for the study (Section B). Next, we present the results for our first research question and focus on the factors associated with completing the success sequence and its milestones (Section C). Then we present the results for our second research question and focus on the factors associated with economic self-sufficiency among a group of young adults who follow and do not follow the success sequence (Section D). We end by summarizing key findings, detailing the limitations of our study, and discussing the practical implications of the findings for educational programming (Section E). The report appendices provide more detailed information on the study methods and findings.

B. Data, methods, and definitions

This report uses data from two complementary sources: (1) nationally representative quantitative data from the National Longitudinal Survey of Youth, 1997 Cohort (NLSY97) and (2) qualitative data collected by the study team through asynchronous written interviews with 225 adults ages 30–35. This approach of using two complementary data sources is rooted in the mixed-methods tradition of explanatory sequential design (Creswell et al. 2003), which involves collecting and analyzing quantitative and then qualitative data in two consecutive phases within one study (Ivankova et al. 2006). The quantitative analysis enables us to identify common patterns in a representative sample and produce robust, generalizable findings. The qualitative analysis enables us to address the "why" part of the research questions by incorporating the actual voices of those who have or have not completed the success sequence.

In addition, the use of two complementary data sources enables us to look at the influences on youth pathways from both prospective and retrospective perspectives (Figure 1). The quantitative analysis involves a prospective approach that draws on a large sample of individuals who were first interviewed when they were teenagers and then re-interviewed every or every other year until their mid-to-late thirties. This type of prospective, longitudinal data collection enables us to identify influences and circumstances early in life that can predict future milestone completion and economic outcomes. In contrast, the qualitative analysis involves a retrospective approach, drawing on participants' reflections and recollections of the pathways they took from adolescence to adulthood. This type of retrospective data collection enables us to examine contextual factors, decisions, and circumstances around education, employment, family life, and economic stability after they have occurred. In particular, the onset of the COVID-19 pandemic, which occurred between the longitudinal data collection and the qualitative data collection, impacted the experiences of young adults around milestone completion. Taken together, the prospective and retrospective time frames of our analysis help provide a more complete picture regarding factors that influence whether someone completes success sequence milestones, completes them in order, and their economic outcomes.

Figure 1. Mixed-method approach and data sources used



Note: NLSY97 = National Longitudinal Survey of Youth, 1997 Cohort.

Note that our analysis does not support an assessment of causality between factors and adherence to the success sequence or economic self-sufficiency outcomes. The observed associations and relationships may be a result of other factors that are not included in our data or that are unobservable; therefore, the results should not be interpreted as causal. In addition, because the samples used in the quantitative and qualitative parts of the study are distinct, our findings should be interpreted as complementary to one another.

Data and methods

Quantitative analysis

For the **quantitative analysis**, we used data from the NLSY97. The analytic sample includes 7,146 individuals who were born between 1980 and 1984 and were ages 13–17 in 1997 when they were first interviewed. We used data through the 18th round of interviews conducted in 2017–2018 when members of our analytical sample were ages 32–38. Appendix Table B.1 provides an overview of the characteristics of the sample, which is weighted to be representative of the full U.S. population.

The NLSY97 collects in-depth information on respondent characteristics, experiences, and attitudes over the progression of their transition to adulthood. In addition, there is a survey of parents and caregivers which is used to collect additional information on the respondent's parent characteristics, family characteristics, and childhood experiences. We used these data to identify factors that influence the

sequence of milestones youth complete as they transition to adulthood, their milestone completion pathway, and whether they achieve economic self-sufficiency.

To analyze how factors defined in youth can explain milestone completion and economic self-sufficiency in adulthood, we performed a quantitative analysis known as a step-wise variance decomposition (Anglim and Grant 2014; Ghani and Ahmad 2010). The analysis involved three distinct steps. First, relying on information collected through the NLSY97, we identified individual characteristics that are predictive of milestone completion and economic outcomes; we also grouped these individual characteristics into six categories which are experienced sequentially during adolescence (shown later in Figure 2). Second, we used NLSY97 data on high school completion, employment, marriage, and childbearing to identify which success sequence milestone each respondent completed and when, and the specific milestone sequence competed by age 30. Third, we assessed how well each of the six categories of individual characteristics identified in the first step of the analysis predict the pathways and self-sufficiency outcomes defined in the second step. See Appendix A.1 for additional details of this analysis.

Qualitative analysis

For the qualitative analysis, members of the study team conducted asynchronous written interviews with 225 adults aged 30–35, who participated by logging in to an online chat board called QualBoard and responding to interview questions moderated by members of the study team. Asynchronous interviews meant that participants were not necessarily online at the same time as the interviewer, and participants could log in and out of the interview at their convenience (see Appendix A.2 for additional details on data collection). We purposefully selected these 225 participants to capture the diversity of pathways adolescents take (the number and the order of milestones they complete) in the transition to adulthood. We set recruitment targets to ensure participant representation across the different pathways, as well as the diversity of participant background characteristics (see Appendix Exhibit B.2 for sample characteristics). The resulting sample, therefore, may differ from the U.S. population overall, in terms of sociodemographic characteristics. For example, our sample is more educated than the U.S. population and includes more women (54 percent) than men (46 percent).[2]

We used the interview data to obtain a more in-depth understanding of the circumstances that influence young adults' pathways to adulthood. First, using close-ended questions on milestone completion and dates, we identified who completed which milestones and in what order, along with participants' economic self-sufficiency status. In doing so, we followed an approach that is as similar as possible to the one we used in our quantitative analysis. Second, using answers to open-ended questions, we grouped responses around the reasons participants achieved or did not achieve each milestone and whether they achieved economic self-sufficiency status. This enabled us to identify common themes and connect those themes to findings from the quantitative analysis and gain a deeper understanding why/why not or how individuals achieved the success sequence or economic self-sufficiency.

[2] Among participants in the qualitative interviews, 41.3 percent reported completing a bachelor's degree or higher, whereas 37.9 percent of the U.S. population had completed a bachelor's degree or higher in 2021 (U.S. Census Bureau 2021).

Key definitions

Success sequence milestones

We defined the success sequence by the four individual milestones and defined each milestone as closely as possible to the definitions used in our earlier report (Inanc et al. 2021):

- **High school completion.** We defined respondents as having completed this milestone if they reported having obtained a high school diploma at any time by age 30 in the NLSY97 (in our quantitative analysis) or by their interview date (in our qualitative analysis). We excluded GED receipt from our primary definition of this milestone because GED recipients tend to have different outcomes than people who receive high school diplomas (for example, Ewert 2012).
- **Full-time employment.** We defined respondents as having completed this milestone if they reported having worked at least 35 hours per week for at least 40 weeks in any given 52-week period by age 30 in the NLSY97 or having ever worked at least 35 hours per week when they were not in school full time by their interview date.
- **Marriage.** We defined respondents as having completed this milestone if they reported having gotten married at any time by age 30 in the NLSY97 or by their interview date.
- **Childbearing.** We defined respondents as having completed this milestone if they reported having any biological children by age 30 in the NLSY97 or any children—biological or otherwise—by their interview date.

Using these definitions, we found that there are individuals in our quantitative sample who followed 64 of the 65 possible sequences of milestones. To see the share of each sample who completed each sequence of milestones, see Appendix Figure B.1 (NLSY97) and B.2 (qualitative interview sample). We identified respondents as following a success sequence pathway as either having completed all four milestones in the prescribed order (for example, Haskins and Sawhill 2003, 2009) or being on track to complete them in order (for example, Wilcox and Wang 2017) by age 30 or by their qualitative interview date. Note: Given that average age at marriage and childbearing has increased over the last couple of decades, we are not able to fully capture these milestones in our analysis because we measure them by age 30 (in NLSY97) or when participants are ages 30–35 (in qualitative interviews). Therefore, it is likely that some of the respondents who we identify as "on track" will complete the full success sequence later in life.

Therefore, we consider those who completed the following pathways as following the success sequence:

- High school graduation, followed by full-time employment, followed by marriage and then childbearing
- High school graduation, followed by full-time employment, followed by marriage (without having had a child)
- High school graduation, followed by full-time employment (without having gotten married or having had a child)

Economic self-sufficiency

We defined economic self-sufficiency as achieving middle-class status, measured by having a household income above 300 percent of the federal poverty level (FPL), adjusted for household size. We measured economic self-sufficiency at ages 32–38 (in NLSY97) or (for interview respondents) by the time of interview when respondents were ages 30–35. We chose to measure economic self-sufficiency in reference to middle-income status (above 300 percent FPL) rather than in reference to poverty status (above 100 percent FPL), because in our qualitative sample the number of participants falling under the FPL is small—only 14 out of 225 participants were in poverty. In our quantitative analysis, as well as in our earlier report (Inanc et al. 2021), we also replicated our regression models for poverty status. Overall, our findings for these two alternative measures of economic self-sufficiency have similar patterns.

Factors explored in the study

To understand influences on young adults' milestone completion and economic self-sufficiency, we organized potential influences around groups of factors. By factors, we mean a circumstance, fact, or event that may contribute to a result or outcome.

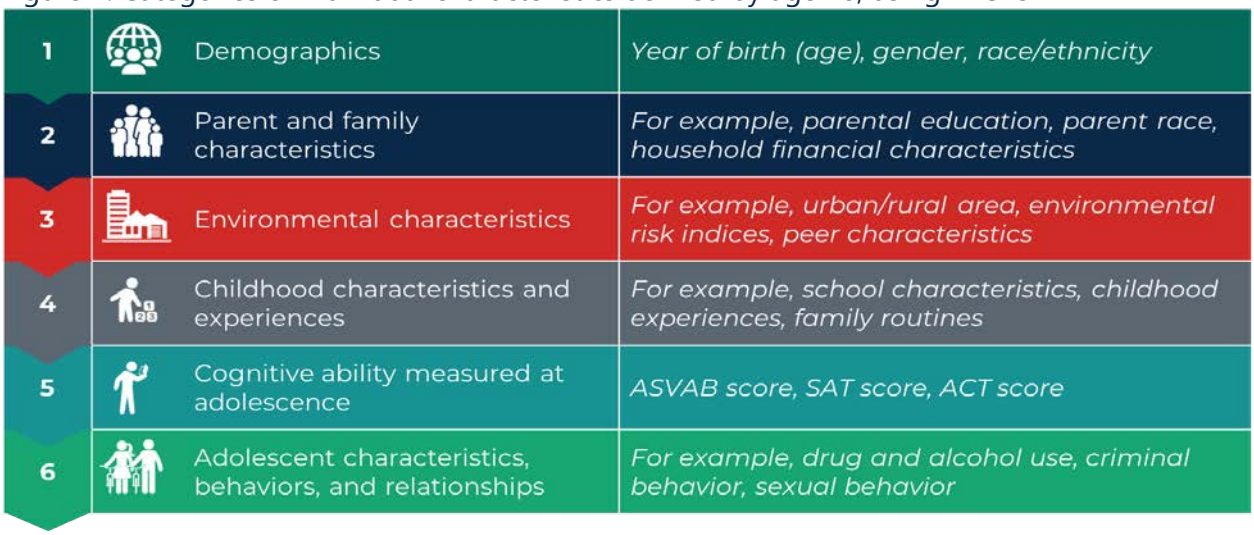
Factors included in the quantitative analysis

In our quantitative analysis of the NLSY97 data, we focused on factors that are defined by the time a respondent is 18 years old and therefore before milestones were completed, allowing us to take a prospective approach to understanding influences on milestone completion and economic self-sufficiency.[3] We started by identifying all factors available in our data that previous research suggests are associated with completing success sequence milestones and economic self-sufficiency. Next, because many of these individual factors are potentially strongly related to one another, we grouped them into six categories. Each of these categories is supported by literature documenting causal impacts on employment and earnings in adulthood.[4] These categories are also sequentially determined in that each one is analyzed before the next. This order determines how we attributed explanatory power if there was overlap between categories. See Appendix Table A.2 for a full list of variables included in each factor category that were considered for this analysis.

[3] This approach enabled us to focus on youth and to limit the potential for reverse causality, which could be a risk if we considered factors likely to be impacted by milestone completion. Reverse causality could happen if completion of milestones could have a direct impact on factors considered.

[4] See, for example, the following studies. Demographic characteristics: Fryer et al. 2013; Lang and Spitzer 2020; Blau and Kahn 2017. Parent and family characteristics: Sacerdote 2007; Black and Devereux 2011. Environmental characteristics: Chetty et al. 2016; Chetty and Hendren 2018. Childhood experiences: Bauer and Schanzenbach 2016; Metzler et al. 2017. Cognitive ability: Heckman et al. 2006; Zax and Rees 2002. Adolescent characteristics, behaviors, and relationships: French et al. 2015; Lleras 2008.

Figure 2. Categories of individual characteristics defined by age 18, using NLSY97



Note: See Appendix Table A.2 for a full list of variables that were analyzed and their categorizations.

ASVAB = Armed Services Vocational Aptitude Battery; NLSY97 = National Longitudinal Survey of Youth, 1997 Cohort.

Factors identified in the qualitative analysis

To identify factors provided through the qualitative interviews, we categorized all responses related to achieving an individual milestone and economic self-sufficiency into eight main themes:

- **Personal.** Personal finances, values, abilities, health, and education
- **Partner/spouse.** Partner/spouse finances, emotional support, values, health, and job
- **Family.** Financial support from family, emotional support from family, family health, family values, and support for childcare and caregiving
- **Friends.** Financial support from friends, emotional support from friends, and friends' values
- **Economic conditions.** Inflation, job market, housing market, and government policies
- **Job.** Earnings and employment history
- **Religion.** Religious beliefs and expectations around marriage and faith

Because qualitative interviews took place after the onset of COVID-19, our interview protocol included questions on the impacts of COVID-19 on participants' employment and living arrangements. COVID-19 also appeared frequently in participants' responses to other interview questions, even without prompting. To better understand how COVID-19 influenced the achievement of success sequence milestones and economic outcomes and to potentially tease out these impacts, we categorized and coded all responses related to COVID-19 as a separate theme.

C. What explains individual milestone completion and success sequence?

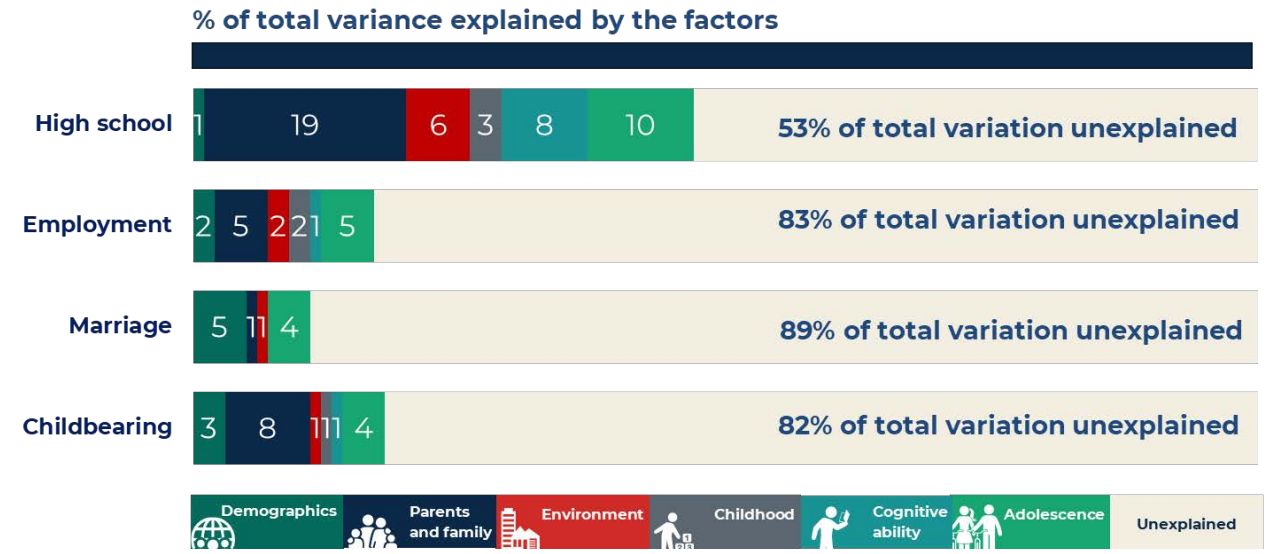
In this section, we discuss our findings on who follows a success sequence pathway and address our first research question on what factors are associated with the completion of the success sequence and its milestones. Our earlier report (Inanc et al. 2021) showed that youth take different pathways to adulthood, with the likelihood of following the success sequence varying by parental education, gender, and race and ethnicity. Here, we explore what additional factors might explain the pathways that youth take. These results can help explain not only why people take different pathways, but also help us start to understand the relationship between the success sequence and economic self-sufficiency.

Our earlier report also found that the completion of individual milestones, regardless of the combination or order in which they are completed, accounted for most of the relationship between the success sequence and economic self-sufficiency. Therefore, we begin by presenting our results on the factors associated with completion of individual milestones. We then focus on the order of completion of the milestones and present findings on the factors and circumstances associated with following a success sequence pathway.

Findings on individual milestones

Our results highlight the importance of parents and family in shaping individual milestone completion. Our quantitative analysis shows that, across the four milestones, parent and family characteristics was the most important category for high school completion, employment, and childbearing (Figure 3). However, as we describe in the following sections, the ways that parents and family influence individuals vary across milestones. For example, although a stable home environment is one of the most important factors enabling high school completion, family values are more important for completion of the marriage milestone. While the most important category for three of the four milestones is parent and family characteristics, this category explained a larger share of the variance in high school completion than any other factor categories, suggesting that family plays a particularly influential role for high school completion compared to the other milestones.

Figure 3. Factors associated with completing individual success sequence milestones



Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: The percentages for factor categories indicate the share of the total variance in outcomes that can be explained by each factor category after accounting for the previous categories. See Appendix A for details on the methods, and Appendix Table B.3 for full regression results.

Interpreting the share of variance explained

We present our quantitative results as the share of variance explained by each factor. In statistics, we refer to the variance of an outcome to describe how much that variable changes between people (or observations). In practical terms, this means how different the outcomes would be if we randomly picked two individuals. For example, in the NLSY97 data, we find that 89 percent of people complete the employment milestone, but only 53 percent complete the marriage milestone. We say that there is more variance in the marriage milestone because it is more likely that if we choose two individuals at random, one would have completed the marriage milestone and one would not have. In technical terms, we define variance as the standard deviation squared.

For this analysis, we were interested in what share of the variance in outcomes can be explained by the factors in our study. We estimate this by saying, if we randomly picked people who are exactly the same (just looking at our factors), what are the chances that one person has completed the milestone and one has not? We compare this to the variance across everyone in the sample. The share of the variance that goes away when we just look at two people who are the same is considered to be the variance that is explained by our factors. Statistically, this is referred to as the R-squared.

Adolescent characteristics, behaviors, and relationships was also an important category across all milestones, explaining the second largest share of the variance. As we describe for each milestone in the following sections, this finding was consistent with qualitative findings from interviews. Youth described many ways that their adolescent experiences shaped their milestone completion, such as substance abuse, mental health, and the formation of value systems.

Our results highlight differences in the amount of variance we can explain in milestone completion with the individual characteristics observed in our quantitative analysis. We explain 53 percent of the variance in who graduates high school with our six categories of factors, relative to only 11 percent of the variance

in who marries. Across all four milestones, there is still a large share of variance which is not explained by any of our factors. This highlights the degree to which the variance in whether someone completes each milestone is driven by factors that we do not capture with our data and likely by factors that are determined after age 18. We used data from our interviews to inform what factors are likely missed by the quantitative data and how trajectories may evolve as youth transition to adulthood, which we discuss below for each individual milestone.

High school completion

Both our quantitative and qualitative findings indicate that young adults recognize the importance of education and completing high school. Eighty-three percent of our NLSY97 sample had completed high school and 96 percent of the participants of the qualitative study had completed high school. Our qualitative interview respondents generally said they considered high school completion "the default". They also emphasized the importance of families in creating a safe home environment that enabled the student to succeed in their studies.

Conversely, among the interview respondents who were unable to complete high school, the most common barriers cited were an unsafe or unstable family life. As exemplified in the qualitative interview quotes (right sidebar), challenges included instances of domestic violence in the home and substance abuse. Respondents also described challenges in high school related to cognitive ability, such as difficulty understanding the requirements to graduate or in completing the courses. These responses were consistent with findings from our quantitative analysis, which showed that parents and family, adolescent characteristics, and cognitive ability were the three most important categories of factors in explaining who completed high school.

> "Honestly I stayed home [from school] because my mom was in an abusive relationship and felt like I needed to stay home to able to call for help/protect her."
>
> "[I faced] a range of barriers. Home life, peer pressure into taking substances I had no business doing. Being raised by a single father who struggled to make ends meet while suffering from epilepsy since he was a child. Worrying, stress, toxic home environment while visiting our mom."

Employment

Employment is the most frequently completed milestone, with 89 percent of the quantitative sample and 97 percent of the qualitative sample having held full-time employment at some point (by the age of 30 in our quantitative sample, and by ages 30 to 35 in our qualitative sample). In interviews, respondents described how they valued employment, because it enabled them to become economically self-sufficient and they found personal meaning in a career. For example, a participant said, "I was working as a tutor for an afterschool program and loved working with students. I knew I wanted to do more than teach so I decided to pursue a career as a school psychologist. It was important to me to do both." These values around employment may have been shaped by parents, family, and adolescent experiences—the two categories of factors which best explained employment in the quantitative sample.

Among those who did not complete the employment milestone, most described wanting to get a job but facing barriers. In interviews, the few respondents who had not reached this milestone described some of the barriers which emerged in adulthood that prevented them from gaining employment. These barriers included childcare demands, and physical health and mental health struggles (as exemplified in the quotes on the right sidebar). Consistent with the interview findings on emerging adulthood barriers, the quantitative findings demonstrate that only 17 percent of variance in the employment milestone can be explain by our factors, which are all defined in youth. Because so much of the variance is left unexplained, this suggests that there are other factors not captured in our qualitative and quantitative data related to this milestone.

"It is harder for me to work with a small child who is not enrolled in school."

"I am fully disabled. I have a medical condition called Spina Bifida that prevents me from working"

"I suffered from postpartum depression after having my second child in November 2019. That, coupled with the pandemic, made it difficult for me to find work."

Marriage

Completion of the marriage milestone was lower than the education and employment milestones in our study. Slightly over half of our sample (53 percent in the NLSY97 data and 50 percent in the qualitative interviews) was married (or had been married). In interviews, some individuals described their decision to marry as consistent with their values and vision of relationships, ranging from deep love for their partner to the "logical next step." In contrast, other interview respondents said they did not place a high value on marriage (as depicted in the quotes in the sidebar on the right). However, most of the respondents who were not married at the time of the interview were open to marriage in the future but had not found the right person. Some respondents also considered finances in their decision to marry, with individuals reporting that marriage was either financially beneficial or detrimental, depending on circumstances.

"We had matching values, morals, similar ideas on goals and ambitions as well as what we wanted in a family of our own."

"I don't value the concept of marriage. It feels like a lot of pomp and circumstance. I don't need a piece of paper or a witness to prove my love. 'Let's just be.'"

Quantitative data show that the most difficult milestone to predict with our factor categories is who does and does not marry by age 30. Only 11 percent of the variance in who did and did not get married can be explained by the six categories of factors. The limited ability of the factors in the quantitative analysis to explain who was married by age 30 shows the importance of factors that we could not quantify or measure in our analyses. Some potential factors that we were unable to account for may relate to factors and circumstances that can be measured later in adulthood, or unobservable factors in the NLSY97 data that predict future partnership outcomes, such as participants' expectations and desires around marriage (Waller and McLanahan 2005), and personal traits (French et al 2014). Of the categories of factors in the quantitative analyses, the strongest predictor of marriage was demographics. This reflects differences across race and ethnicity and the fact that men tend to marry later. Previous research suggests that these differences in marriage rates by race and ethnicity are rooted in systemic and structural

inequalities such as exclusion from marriage markets (Harris Ono, 2005; South Crowder 1999) or, historical inequality in the rights to and from marriage by race (Lenhardt 2015). Unlike the other three milestones, parent and family characteristics had only a limited association with marriage.

Childbearing

Childbearing was also less common in our sample than education and employment milestones; 58 percent of individuals in our quantitative sample and 49 percent of interview participants had a child. Our six categories can explain some (18 percent) of the variance in who does and does not complete this milestone, suggesting the need to look beyond these categories. The low share of variance explained is partially due to the fact that we measured childbearing at age 30, and, therefore, it is possible that additional members of our sample who have not had a child may go on to have children[5]. Unobservable characteristics may influence a person's ability to have children (for example, fertility, overall health, finances, and family support), when they plan to have children (for example, career aspirations), and whether they want children at all (for example, desire to be a parent). Similar to education and employment, parent and family characteristics have the strongest role in explaining who did and did not complete this milestone.

Results from interviews revealed different experiences among respondents who were parents, depending on whether childbearing was planned. Participants who had a planned child described making the decision based on their desire to have children, their values, and the importance of feeling financially stable (as exemplified in the first quote in the sidebar on the right). These results are consistent with the strong impact of parent and family characteristics—which likely impact values and financial stability. In contrast to planned childbearing, participants broadly described unplanned childbearing as something that they experienced, often characterizing it as somewhat out of their control. These respondents often reported feeling financially or emotionally unprepared. Among those who chose to not have a child, respondents similarly referenced personal desires and lack of financial stability as reasons for not having a child (as exemplified in the second quote in the sidebar on the right).

> "I was working, my ex was working. During that time I really wanted children. I felt ready because our combined income was more than enough for a small family of three."

> "I don't want to be responsible for another human life. The world is overpopulated. State of the world is not great. Loss of freedom. Financial responsibility. Being pregnant/giving birth sounds horrifying."

Findings on the order of milestone completion

A key feature of the success sequence model is its emphasis on the importance of completing milestones in a specific order, with childbearing happening only after graduating high school, gaining full-time employment, and marriage. In this section, we therefore focus on understanding the factors that explain who follows a success sequence pathway, either by completing all four milestones in the prescribed order

[5] The participants in this study have yet to reach what is known as completed fertility (age 15–44 years); therefore, many participants may go on to have children. In addition, the mean age for mothers has increased over the last decades— for example, the average woman gave birth for the first time at age 25.6 in 2011 and 27.3 in 2021 (Osterman et al. 2023).

or by being on track to do so. Despite often being viewed as the desired path by interview respondents, less than half of our quantitative sample (43 percent) and half (50 percent) of our qualitative sample followed a success sequence pathway.

The factors that explain who follows a success sequence pathway were similar to those that explain individual milestones. As displayed in Figure 4, our quantitative analysis shows that parents and family, followed by adolescent characteristics, behaviors, and relationships, were again the two categories of factors that explained most of the variance in who did and did not follow a success sequence pathway. Like with individual milestones, most of the variance in who does and does not follow the success sequence (76 percent) is not explained by our categories of factors. This additional variance may be explained by factors that developed after adolescence, such as pursuing additional education, experiencing health challenges, or employment experiences, as suggested by the qualitative interviews.

Figure 4. Factors associated with following a success sequence pathway

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: The percentages for factor categories indicate the share of the total variance in following a success sequence pathway that can be explained by each factor category after accounting for the previous categories. See Appendix A for details on the methods and Appendix Table B.3 for full regression results.

In interviews, most participants reported they planned to follow a success sequence pathway, but only some were able to do so. Those who did follow a success sequence pathway often described the importance of their values in doing so. Some referred to the order of milestones as the "traditional route" and expressed a desire to follow it as a result (as exemplified in the sidebar on the right). Many expressed a desire to be married before having children or to be financially stable before being married. These values were likely impacted strongly by parents and family and by adolescent experiences, as participants also mentioned their parents or upbringing in reference to their defined values around completing milestones in a "prescribed order." Respondents who did not follow a success sequence pathway also described having originally planned to do so. However, many of these respondents encountered barriers to completing the success sequence that they had not anticipated, such as lack of parental support and health problems. In particular, respondents indicated that family support was crucial in allowing

"We knew we wanted to be together and start a family. It was important to us and our families to take the 'traditional' route."

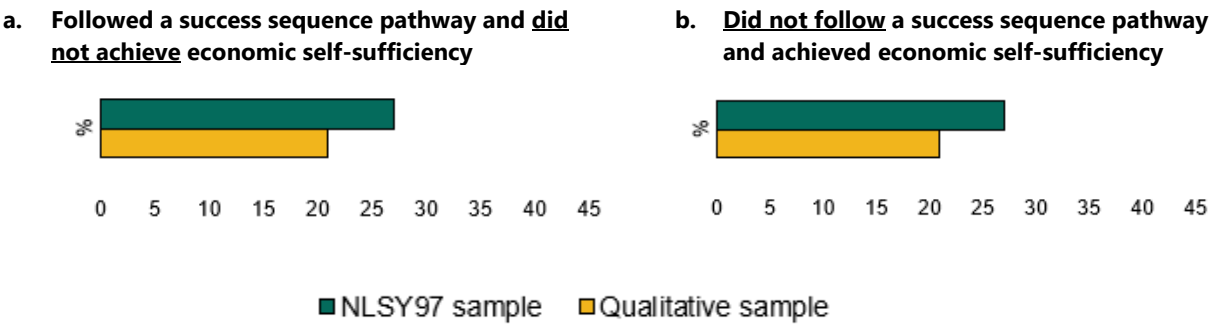
"I wanted to go to a trade school … I just needed my mom to fill out the paperwork for the financial part. She just said NO! So remember 10 years from now if my life is screwed up, you could have helped me succeed in life. So after that heartbreaking experience I kinda didn't have it in me to try again (to find employment) plus I started having children."

participants to complete high school before obtaining full-time employment, as exemplified in the quote (upper right sidebar).

D. What explains who becomes economically self-sufficient?

As discussed in our 2021 report (Inanc et al. 2021), young adults who adhered to the success sequence had a high chance of economic sufficiency; however, not everyone who followed the success sequence achieved economic self-sufficiency. Similarly, there were other pathways that do not align with the prescribed sequence that were associated with economic self-sufficiency. In fact, in this present mixed-method analysis, we observed that among those who did follow a success sequence pathway, nearly one-third (27 percent) of our NLSY97 sample and one-fifth (21 percent) of our interview participants did not achieve economic self-sufficiency, defined as reaching middle-class status. Conversely, among those who did not follow a success sequence pathway, 42 percent of our NLSY97 sample and 27 percent of the qualitative sample achieved economic self-sufficiency (Figure 5). In this section, we analyze the factors that explain why some individuals struggle achieving economic self-sufficiency and how others forge alternative paths towards economic self-sufficiency.

Figure 5. Rates of economic self-sufficiency by whether respondents followed a success sequence pathway (percentages)



Source: NLSY97 = National Longitudinal Survey of Youth, 1997 Cohort (NLSY97).

Note: Economic self-sufficiency is measured as middle-income status, defined as being 300% above the federal poverty level.

Our quantitative analysis shows that much of the variance in economic self-sufficiency outcomes cannot be explained by the individual characteristics observed in our data. Combined, the six categories of factors only explain 15 percent of the variance in who achieves economic self-sufficiency among those who follow the success sequence and 14 percent among those who do not (Figure 6). Within the share that is explained, the factors explaining economic self-sufficiency and the factors explaining milestone completion are remarkably similar for individuals who do and do not follow the success sequence: parent and family characteristics play the largest role. The relatively low share of explained variance suggests that much of what influences whether or not individuals achieve economic self-sufficiency can be explained by unobserved characteristics such as motivation and drive or structural inequalities in the labor market, or by factors and circumstances encountered later in life or are not measured in the data for earlier in life, which we explore in our qualitative interviews.

Figure 6. Factors associated with economic self-sufficiency

a. Participants who followed a success sequence pathway

b. Participants who did not follow a success sequence pathway

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: The percentages for factor categories indicate the share of the total variance in achieving middle-class status among those who *followed* (panel a) and *did not follow* (panel b) a success sequence pathway that can be explained by each factor category after accounting for the previous categories. See Appendix A for details on the methods, Appendix Figure B.3 for results using non-poverty status, and Appendix Table B.4 for full regression results.

Barriers to economic self-sufficiency among those who followed a success sequence pathway

Among qualitative interview participants who followed a success sequence pathway, low-paying jobs and poor economic conditions in the country were cited as preventing them from achieving economic self-sufficiency.[6] Many participants in this group worked full-time at the time of the interview (and had completed the full-time employment milestone), but their current job did not pay enough to grant them a middle-class lifestyle. For example, a participant who makes a living by driving for Door Dash and Instacart while supporting his wife said, "My total monthly income is not enough to pay bills and other expenses while still having money left over to save." Another common factor was the high cost of living due to the economic conditions at the time of the interview, the summer of 2022. Participants reported cuts in their work hours, the rising cost of essentials, and the inability to save due to the COVID-19 pandemic (discussed further below).

Others in this group referenced barriers to employment and lack of affordable childcare as contributors to their inability to achieve economic self-sufficiency. Some participants described how mental and physical health problems prevented them from obtaining or keeping full-time employment, which, in turn, negatively influenced their economic well-being. Participants with young children mentioned the high cost of and lack of affordable childcare as a barrier to economic self-sufficiency.

[6] For participants who did not follow the success sequence model, their barriers to economic self-sufficiency were similar to the barriers of those who did follow the success sequence model.

Facilitators of economic self-sufficiency among those who did not follow a success sequence pathway

Among individuals who *did not* complete the success sequence, support from family was a frequently mentioned facilitator of their economic self-sufficiency. Consistent with our findings from the quantitative analysis (Figure 6), many interview participants in this group described finding their current employment, and therefore income, through connections, emphasizing the importance of family and social networks. Others emphasized that it was their families that primarily helped them either by assisting regularly with monthly expenses (such as childcare, household items, and bills) or living with them and splitting expenses (such as rent, utilities, and other living costs).

Other interview participants credited their economic self-sufficiency, despite not having followed a success sequence pathway, to having a high-paying job. The paths that this subsample took to well-paying jobs were highly varied. Some participants relied on college degrees to land well-paying jobs, and other participants managed their own businesses or worked as skilled tradespeople. Interview respondents also described achieving high wages by working their way up from low-paying entry level jobs. Others described just getting lucky in finding a well-paid job. [7]

The differential effects of the pandemic on economic self-sufficiency

Because the qualitative interviews took place during the summer of 2022, COVID-19 appeared as a common theme in participants' responses around economic self-sufficiency.

Among the subsample who followed the success sequence but did not achieve middle-class status, COVID-19 was often mentioned as a barrier to financial stability. The subsample noted COVID-19 most frequently in the context of limited work opportunities, price increases due to the pandemic, and the inability to save during the pandemic. Many said that their wages decreased during the pandemic in response to pay cuts or a reduction in hours. A participant said, "My husband lost his job and my hours were cut at my workplace." Another participant said, "When places of worship closed, I wasn't paid to lead services at my student pulpit congregation. This lack of steady income meant I sometimes had to draw on my own savings and couldn't add to it during this time." Many participants directly linked pandemic inflation and price increases to their difficulties with financial stability.

Among participants who followed the success sequence and attained middle-class status, COVID-19 was mentioned as a positive factor in their financial stability. The pandemic's positive effect reflected an increased ability to save in a climate of reduced discretional spending and an increased demand for certain types of work. A participant said, "The pandemic helped us save a lot of money. We carried those habits with us until now. We were not able to do that before." Others found that their businesses did better during the pandemic, especially those that benefited from the move to remote work. Another participant said, "Yes I work in IT so I had more opportunities as everyone tried to work from home."

[7] Participants who did follow a success sequence pathway and achieved economic self-sufficiency reported that their ability to budget and manage their money, along with a high-paying job contributed to their economic self-sufficiency. These participants did report lower levels of support from families than those who reached middle class status and did not follow the success sequence model.

E. Discussion

As shown in our earlier study (Inanc et al. 2021), adolescents take diverse pathways in their transitions to adulthood, and not all of these pathways align with the success sequence model. In this new mixed-method study, we investigated why some complete success sequence milestones and adhere to the success sequence and others do not. Although the issue of who does and does not complete each milestone and who achieves the success sequence is complex and was not fully explained by the factors in our data, we found that parents and family play an important role in influencing milestone completion, along with following the order of the success sequence. Parents and family shaped young adults' pathways by providing a safe home environment, economic resources, access to networks, and influencing their values. However, we identified other factors such as adolescent experiences, physical health, mental health struggles, and childcare demands that influenced youth and young adults as they traveled the success sequence pathways.

Our earlier study also found that adherence to the success sequence and economic self-sufficiency in adulthood is not a one-to-one relationship. Some people followed a success sequence pathway and did not achieve economic self-sufficiency, and yet some did follow the success sequence and achieved economic self-sufficiency. In the present mixed-methods study, we extended these findings by investigating the factors and circumstances associated with economic self-sufficiency among people who took similar pathways. Among those who followed a success sequence pathway, low-paying jobs and poor economic conditions in the country, as well as individual barriers to employment and lack of affordable childcare, were commonly cited reasons that prevented them from achieving economic self-sufficiency. Among those who *did not* complete the success sequence, support from parents and family was an important factor for achieving economic self-sufficiency, either by providing financial support or access to networks, indicating the lack of intergenerational economic mobility. Another important factor was landing a well-paying job, which participants achieved through continuous education, hard work, and luck.

Limitations of the study

One limitation of our study is that factors, decisions, and circumstances surrounding completion of milestones in the success sequence were multi-faceted and not fully captured in any one complete dataset. The NLSY97 survey is a rich, longitudinal data source, but it does not include an exhaustive number of variables on individuals and their circumstances. For example, variables related to personality or neighborhood characteristics are not comprehensively included in the dataset, and other survey items are only proxies for factors of interest. For example, scores on standardized tests are only a proxy for cognitive ability. Therefore, the quantitative analysis cannot explain the total share of the variance in an outcome. In contrast, our interview data relies on many open-ended questions and could have been potentially unlimited in the topics that it covered. However, the interview protocol did not include questions on areas that may influence outcomes, such as personality. Moreover, responses were filtered through the respondents' perspectives and may have been influenced by their subjectivity, interpretation of the questions, and their ability to accurately recall the circumstances concerning their milestones. In addition, our qualitative sample is more highly educated than the norm and may therefore not be representative of the U.S. population.

Another study limitation is that the findings may not be fully applicable to younger adults, since our NLSY97 sample was born in 1980–1984 and our qualitative sample was born in 1987–1992. It was important to examine participants born between the early 1980s and 1990s to allow participants enough time to complete milestones, as selecting a younger cohort would mean a lower likelihood of achieving the milestones. However, we cannot say if our findings generalize to people born after 1984 (for the quantitative analysis) or after 1992 (for the qualitative analysis). This is important, in part, because the timing and rates of milestone completion have changed over time. For example, the average age at marriage and childbearing has increased over the last couple of decades, and increasingly more young adults form cohabiting partnerships before, or instead of, marriage. The specific sequence of milestone completion and their timing, as well as factors associated with them, will likely differ among adults younger than those included in our analyses.

Finally, it is important to consider the timing of milestone measurement when interpreting results of the study-- through age 30 in NLSY97 and ages 30–35 in qualitative interviews—the ages during which many young adults are still completing milestones. In particular, many individuals in our study did not complete marriage or childbearing milestones but may do so later in life. In some cases, the factors may be predicting when an individual completes the milestones, rather than whether they actually will. Similarly, economic self-sufficiency was measured at different periods—in 2017–2018 in the NLSY97 analysis and in the summer of 2022 in the qualitative analysis. Because the qualitative interviews were conducted when the social and economic impacts of COVID-19 were prevalent, participants' responses about their milestone completion and economic self-sufficiency could also reflect the COVID-19 context.

Practical implications

Policy approaches influenced by the success sequence theory emphasizes educational programming and public awareness campaigns that teach youth about the importance of following specific milestones in a particular order to achieve economic self-sufficiency. For example, the federally funded Sexual Risk Avoidance Education Program requires grantees to teach youth the benefits associated with success sequence as a poverty prevention approach, by focusing on how the order of school, jobs, relationships, and childbearing can impact their future. Findings from our earlier report showed that the completion of the education, employment, and marriage milestones are more important for achieving economic self-sufficiency than the specific ordering of the four milestones. Moreover, findings from our qualitative analysis suggest that many young adults plan to complete success sequence milestones and intend to do so in the prescribed order. However, our data suggest that they may not have the supports needed to do so, or many of them may face external barriers, such as lack of a supportive home environment or chronic health conditions, that are out of their hands. Curriculum developers and program providers should acknowledge that communication about the success sequence and its association with economic self-sufficiency may not be sufficient for youth to follow it. Programming should also focus on supporting youth facing external barriers to achieving the success sequence.

In addition, given our findings in Inanc et al. 2021 and this follow-up study on the diversity of pathways adolescents take in the transition to adulthood, curriculum developers and program providers must account for the likelihood that some program participants are already on a pathway that does not align with the success sequence. Examples include participants that obtained full-time employment before finishing high school or became parents at a young age. Accounting for the diversity of pathways is

important to ensure that messaging around the success sequence does not unintentionally discourage these participants from completing high school, obtaining employment, or getting married. It is also important to ensure messaging does not alienate program participants who might already be completing the milestones out of order from feeling as though the curriculum is not relevant to them. Although encouraging youth to think carefully about these milestones and the importance of their sequence is beneficial, our findings suggest programs should also teach youth that the success sequence is not the only pathway to economic self-sufficiency. As shown in our previous report (Inanc et al. 2021), graduating from high-school, full-time employment, and marriage are important milestones toward economic self-sufficiency, regardless of the order in which they are achieved.

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Appendix A

Data and Methods

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This appendix summarizes the analysis methods for both the quantitative analysis on the factors associated with youth pathways to adulthood and economic self-sufficiency and the qualitative data collection approach, including recruitment, interview topics, and the analysis of 225 participant interviews. The first section describes the quantitative approach, including data sources used, our approach to defining and grouping pathways that youth take to adulthood, our approach to identifying and categorizing factors that were considered in this analysis, the methods we used to examine the extent to which each factor can explain outcomes, and additional information on interpreting the share of variance explained. The second section describes the qualitative approach, including the recruitment approach and targets for qualitative interviews; data collection strategy; topics covered during interviews; data analysis approach for the qualitative interviews; coding schema and milestone definitions; and methods used to determine milestone completion and economic self-sufficiency.

A.1. Quantitative Analysis

Data

The primary analyses in this report are based on data from the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 is the latest survey within the National Longitudinal Surveys, sponsored by the Bureau of Labor Statistics, U.S. Department of Labor. The first round of the NLSY97 was conducted in 1997, with a nationally representative sample of nearly 9,000 individuals who were born between 1980 and 1984. The respondents were ages 12 to 18 at the time of their first interview. Respondents were interviewed each year from 1997 to 2011 and biannually since 2011. Round 18, the latest round of the survey, was conducted in 2017 and 2018 when respondents were ages 32 to 38 (Table A.1) and included approximately 6,700 of the Round 1 participants. Black and Hispanic adolescents were oversampled for the survey to ensure the sample size was sufficient to produce reliable estimates for those respondent groups.

The NLSY97 collects detailed information on labor market behavior and education outcomes. It also includes questions related to household characteristics, parents, family processes, childhood, dating, marriage, cohabitation, income, assets, program participation, health conditions, attitudes, and crime and substance use.

Table A.1. Description of the available NLSY97 rounds

Round	Year	Ages	Sample size	Round	Year	Ages	Sample size
Round 1	1997–1998	12–18	8,984	Round 10	2006–2007	21–27	7,559
Round 2	1998–1999	13–19	8,386	Round 11	2007–2008	22–28	7,418
Round 3	1999–2000	14–20	8,208	Round 12	2008–2009	23–29	7,490
Round 4	2000–2001	15–21	8,080	Round 13	2009–2010	24–30	7,559
Round 5	2001–2002	16–22	7,882	Round 14	2010–2011	25–31	7,479
Round 6	2002–2003	17–23	7,896	Round 15	2011–2012	26–32	7,423
Round 7	2003–2004	18–24	7,754	Round 16	2013–2014	28–34	7,140
Round 8	2004–2005	19–25	7,502	Round 17	2015–2016	30–36	7,103
Round 9	2005–2006	20–26	7,338	Round 18	2017–2018	32–38	6,734

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Our primary analyses relied on the sample of NLSY97 respondents who were at least age 30 at the time of their final interview. To account for sample selection and attrition, we used survey-provided sample weights in all analyses. In particular, we created sample weights for this study by assigning each individual the cross-sectional sample weights associated with the first wave in which they were at least age 30.

Pathways to adulthood

Milestone completion

We used the NLSY97 to assess the proportion of young adults who had completed high school, had a full-time job, gotten married, and had children. We measured this proportion using all waves of data for each individual through age 30. We chose the primary definitions for each milestone to match most closely the definitions used in previous research on the success sequence. We defined each milestone as follows:

- **High school completion**: We defined respondents as having completed this milestone if they reported having obtained a high school diploma. We measured the timing of milestone completion as the date (that is, month and year) of degree receipt. We did not consider attaining a GED certificate as high school completion. We excluded GED receipt from our primary definition of this milestone because GED recipients tend to have different outcomes than people who receive high school diplomas (Ewert 2012).
- **Full-time employment**: We defined respondents as having completed this milestone if they reported having worked at least 35 hours per week for at least 40 weeks in any given 52-week period by age 30. This estimation was drawn from the weekly employment arrays in the NLSY data, which list the number of hours an individual worked in each week of the entire follow-up period. In assessing this criterion, we accounted for all jobs reported within a 52-week period (that is, if someone worked 30 hours at one job and 10 hours at another, they would still be counted as working more than 35 hours per week). We measured the timing of milestone completion as the first week of employment for which the following 52-week period met this criterion.
- **Marriage**: We defined respondents as having completed this milestone if they reported having gotten married at any time by age 30. We measured the timing of milestone completion as the date (that is, month and year) of a respondent's first marriage.
- **Childbearing:** We defined respondents as having completed this milestone if they reported having any biological children by age 30. We measured the timing of milestone completion as the birth date (that is, month and year) of the respondent's first biological child.

Pathways that follow the order of the success sequence model

We characterized pathways as being consistent with the success sequence if the individual either completed all four milestones or were on track to do so. This includes the sequence of four milestones that follow the success sequence order (that is, high school completion, full-time employment, marriage, and childbearing, in that order), as well as the two sequences that represent following the order of the success sequence without completing all the milestones (that is, only high school completion and full-

time employment, and only high school completion, full-time employment, and marriage).[8]

Individual factors defined in youth

To characterize the factors determined by age 18 that may explain youth pathways to adulthood and economic self-sufficiency, we divided individual factors into six distinct categories, representing the order in which they are determined or measured in a young person's life:

1. **Demographics**. Factors that describe predetermined individual characteristics, including year of birth, sex, and race and ethnicity.
2. **Parent and family characteristics**. Factors that describe an individual's parents or family, such as parental education level, household size, and parenting style.
3. **Environmental characteristics**. Factors that describe an individual's physical and social environment, such as their peers' behaviors and whether youth reside in an urban or rural area.
4. **Childhood characteristics and experiences**. Factors that describe the childhood experiences of individuals, including school characteristics, childhood experiences, and physical-, mental-, or emotional-limiting conditions identified in childhood.
5. **Cognitive ability, measured at adolescence**. Factors that describe cognitive assessments, including the Armed Services Vocational Aptitude Battery score, SAT score, and ACT score. For the NLSY97, these tests were all administered in adolescence.
6. **Adolescent characteristics, behaviors, and relationships**. Factors that describe the characteristics, attitudes, behaviors, and relationships youth experience in adolescence. This category includes variables such as youth sexual behaviors, drug and alcohol use, and beliefs about the future expressed in adolescence.

Table A.2 lists all of the factors included and the associated factor category. We considered these categories to be sequentially determined over time, to ensure it is reasonable to analyze them in a step-wise variance decomposition (see below for detail). All of the variables are measured at the first wave of the NLSY97 survey unless otherwise indicated.

Table A.2. Individual factors defined in youth

Factor categories and individual factors
Demographics
Gender
Race/ethnicity
Year of birth
Parent and family characteristics
Age of biological mother at first birth
Age of biological mother when respondent born

[8] We do not include people who have only completed high school in this category, despite the fact that they have not deviated from the success sequence prescribed model, given the age threshold of 30 and the low associated likelihood of economic self-sufficiency.

Factor categories and individual factors
Anyone in household received government benefits (for example, Aid to Families with Dependent Children (AFDC), food stamps, housing assistance)
Anyone in household received unemployment insurance or workers compensation[a]
Biological mother younger than 20 at first birth
Biological mother younger than 20 at respondent birth
Born outside of the United States
Both biological parents lived in the household when respondent was age 2
Either parent served prison sentence
Family/home risk index
Father served in military
Father supportive of respondent
Father's education
Household income at first survey
Household size
Language spoken at home
Log of household income
Mother served in military
Mother supportive of respondent
Mother's education
Net worth of household according to parent
Nonresponding parent race/ethnicity
Number of children in household at first survey
Number of parents in household
Parent has long-term health problem limiting employment
Parent's general health
Parent's spouse/partner general health
Parent's spouse/partner has long-term health problem limiting employment
Religion
Residential dad supportive of residential mom
Residential father's parenting style
Residential mom supportive of residential dad
Residential mother's parenting style
Responding parent's race/ethnicity
Square root of net worth of household
Youth lived with both biological parents at age 2
Environmental characteristics
Census region of residence
Enriching environment risk index
Living in urban/rural area
Number of students in primary school district

Factor categories and individual factors
Percent of peers who belong to a gang
Percent of peers in sports, clubs, school activities
Percent of peers using illegal drugs
Percent of peers who cut classes or school
Percent of peers who do volunteer work
Percent of peers who get drunk one or more times a month
Percent of peers who go to church regularly
Percent of peers who have had sex
Percent of peers who plan to go to college
Percent of peers who smoke
Physical environment risk index
Reside in metropolitan statistical area
Childhood characteristics and experiences
Attended public primary school
Both biological parents lived in the household when respondent was age 6
Both biological parents lived in the household when respondent was age 12
Changed schools from ages 5–12
Ever repeated a grade
Has a learning disability
Has a mental or emotional limiting condition
Has any limiting condition
House or apartment broken into before age 12
Index of family routines
Seen someone shot with gun by age 12
Type of school attended
Victim of bullying before age 12
Youth ever lived through hard times
Youth spent 20 or more hours in child care first year
Cognitive ability
ASVAB score
Highest ACT score
Log of ASVAB score
SAT math score
SAT verbal score
Adolescent characteristics, behaviors, and relationships
Age at first date
Age at first menstrual period
Age at first sex
Age at first time smoked
Age at first time drank alcohol

Factor categories and individual factors
Age at first time used cocaine or other hard drugs
Age at first time used marijuana
Age when puberty began
Arrested by age 18
Behavioral/emotional problems scale, parent report
Behavioral/emotional problems scale, youth report
Belief about what method best prevents pregnancy
Belief on the best method for preventing sexually transmitted disease[a]
Belief on when in menstrual cycle pregnancy is likely to occur
Believes disruptions by other students get in the way of learning
Believes school discipline is fair
Believes students are graded fairly at school
Believes teachers are good
Believes teachers are interested in students
Believes there is a lot of cheating on tests and assignments at school
Charged with a crime by age 18: assault
Charged with a crime by age 18: property damage
Charged with a crime by age 18: theft, burglary, robbery
Convicted of a crime by age 18
Delinquency score index
Ever belonged to gang
Ever drank alcohol
Ever employed as a teen
Ever employed as a teen for at least 50 weeks
Ever gotten someone pregnant
Ever had sex
Ever had something stolen at school
Ever in a fight at school
Ever late for school without an excuse
Ever run away from home
Ever smoked a cigarette
Ever suspended from school
Ever threatened to be hurt at school
Ever used hard drugs (cocaine, inhalants, or other drugs)
Ever used marijuana
Expected likelihood of attending college
Feels safe at school
Grades received in 8th grade
Grades received in high school
House or apartment broken into ages 12–18

Factor categories and individual factors
Limit breaking, youth report
Limit-setting index, youth report
Number of days used marijuana in past 30 days
Number of non-live births from previous pregnancies
Number of days absent from school
Number of jobs from ages 14–19
Number of sexual partners ever had
Number of times changed schools from ages 13–18
Number of times late to school without excuse
Number of times used marijuana before or during school or work
Number of weeks employed from ages 14–19
Number of times ever pregnant
Optimism scale
Parental monitoring by residential father
Parental monitoring by residential mother
Percent chance has a college degree by 30 years old, parent report
Percent chance has a college degree by 30 years old, youth report
Percent chance in jail by 20 years old, parent report
Percent chance in jail by 20 years old, youth report
Percent chance works 20 or more hours per week by 30 years old, parent report
Percent chance works 20 or more hours per week by 30 years old, youth report
Percent chance youth arrested by next year, youth report
Percent chance youth gets someone pregnant by next year, youth report
Percent chance youth has high school diploma by 20 years old, parent report
Percent chance youth has high school diploma by 20 years old, youth report
Percent chance youth is a parent by 20 years old, parent report
Percent chance youth is a parent by 20 years old, youth report
Percent chance youth is in school next year, parent report
Percent chance youth is in school next year, youth report
Percent chance youth is pregnant by next year, youth report
Seen someone shot with gun ages 12–18
Self-reported general health[a]
Substance use index
Used condom at first sex
Used birth control at first sex
Victim of bullying ages 12–18
Youth mental health scale

Source: National Longitudinal Survey of Youth, 1997 Cohort.

[a] These factors were dropped from all least absolute shrinkage and selection operator (LASSO) models.
ASVAB = Armed Services Vocational Aptitude Battery.

Analysis of factors

We estimated the share of the variance in outcomes that can be explained by each of the six factor categories using a step-wise variance decomposition (Anglim and Grant 2014; Ghani and Ahmad 2010). This method allows us to estimate the share of the variance that can be explained by adding each factor category incrementally to the regression. Both demographic characteristics and parent and family characteristics are determined before or at birth; therefore, we started building our models with demographic characteristics, followed by parent and family characteristics. Environmental characteristics, such as whether one lives in a rural versus urban area or the characteristics of their peers, are likely to be determined by parent and family characteristics. As a result, we considered them after parent and family characteristics. Next, we included childhood characteristics and experiences. We considered cognitive ability to follow childhood, given that our available estimates of cognitive ability were measured at early adolescence. This category included scores on cognitive tests, which are likely impacted by childhood experiences such as school quality. Finally, we considered factors defined and measured during adolescence, which were determined after all of the other factors We attributed the incremental share of variation explained when each factor category is added as the share of the variance explained by this category.

To estimate this, we took the following steps:

Step 1. Run a least absolute shrinkage and selection operator (LASSO) logistic regression model with five-fold cross validation of the outcome on all variables in factor category 1, demographics. Identify the variables selected by this model.

Step 2. Run a logistic regression of the outcome on the variables selected by the LASSO model in Step 1. Identify the pseudo *R*-squared as the share of the variance explained by demographics.

Step 3. Run a LASSO logistic regression model with five-fold cross validation of the outcome on all variables selected as factors in factor category 2, parent and family characteristics, forcing all the variables selected in Step 1 to be included in the model. Identify the variables selected by this model.

Step 4. Run a logistic regression of the outcome on the variables selected by the LASSO model in Steps 1 and 3. Identify the pseudo *R*-squared as the share of the variance explained by demographics and parent and family characteristics. Estimate the share of the variance explained by parent and family characteristics as the difference between the pseudo *R*-squared estimated in Step 4 and the pseudo *R*-squared estimated in Step 2. Repeat these steps for the subsequent factor categories.

We ran this model on seven unique combinations of outcomes and samples to address our two research questions, as shown in Table A.3.

Table A.3. List of quantitative report analyses

Model	Research question	Outcome	Sample
1	1.a: What are the factors associated with completing each milestone?	Indicator equal to 1 if an individual completed high school	Full sample
2	1.a: What are the factors associated with completing each milestone?	Indicator equal to 1 if an individual completed employment	Full sample
3	1.a: What are the factors associated with completing each milestone?	Indicator equal to 1 if an individual got married	Full sample
4	1.a: What are the factors associated with completing each milestone?	Indicator equal to 1 if an individual had a child	Full sample
5	1.b: What are the factors associated with completing the milestones in the prescribed order of the success sequence?	Indicator equal to 1 if an individual took a pathway that is consistent with the success sequence model	Full sample
6	2.a: What are the factors associated with following success sequence milestones in the prescribed order but not achieving economic self-sufficiency?	Indicator equal to 1 if an individual had a family income of at least 300 percent of the poverty level at their most recent interview	Individuals who took a pathway that is consistent with the success sequence model
7	2. b: What are the factors associated with not following the success sequence milestones in the prescribed order but still achieving economic self-sufficiency?	Indicator equal to 1 if an individual had a family income of at least 300 percent of the poverty level at their most recent interview	Individuals who took a pathway that is not consistent with the success sequence

In our regression models, for binary and categorical covariates with missing values, all missing values were imputed at the mode of the variable. For continuous variables, missing values were imputed to the average value. We also included flags for each variable indicating a missing value. For categorical variables, the mode was considered as the excluded category.

A.2. Qualitative Analysis

Recruitment and sample selection

Mathematica worked with a market research vendor, Schlesinger Group, to recruit interview participants for the qualitative interviews described in this report. Schlesinger Group maintains a large and diverse active panel of more than 640,000 users and obtains demographic information from all users at intake. Schlesinger Group recruited interviewees from its online panel by using a participant screener developed by Mathematica and the Office of Planning, Research, and Evaluation.

The recruitment screener collected information about whether potential participants had achieved each of the four success sequence milestones: high school graduation, full-time employment, marriage, and childbearing. To ensure that the interview sample represented participants with diverse educational pathways, the screener asked for the highest educational degree attained. The recruitment screener asked whether participants had ever been employed full-time or had ever married to ensure that participants who had been previously employed full time but were not currently employed full time or that participants who had previously been married but were not currently married had achieved the employment and marriage milestones. To be inclusive of alternative family structures, the recruitment screener asked whether participants had any children (including biological, adopted, or foster care). The

recruitment screener obtained information about participants' age, gender, ethnicity, race, current employment status, personal and household income for 2021, and state of residence.

Before the start of recruitment, Mathematica provided Schlesinger Group with recruitment targets based on educational attainment, household income, marriage and childbearing status, geographic region, and primary language Spanish. Mathematica specified these targets to ensure that the sample was broadly diverse and contained a mix of pathways to ensure representation of a variety of life experiences and backgrounds from participants. A breakdown of recruitment targets appears in Appendix Table A.4.

Although the final sample did not match recruitment targets exactly, our final sample was racially and ethnically diverse and encompassed considerable variation in degree of education attainment, household income, and geographic region of residence. In Appendix Table B.2, we present a complete breakdown of the demographic characteristics of our final analytic sample.

Table A.4. Recruitment targets by interview language

	English-language recruitment targets	Spanish-language recruitment targets
Total	**195**	**30**
Educational attainment		
High school diploma/equivalent or less	85	10
Associate degree	25	10
Bachelor's degree or higher	52	10
Marital status and childbearing		
Never married, no children	45	7
Never married, with children	50	8
Married, with children	50	7
Married, no children	50	8
Household income		
$49,000 or less	55	10
$50,000 to $74,999	45	10
$75,000 or more	95	10
Geographic region of residence		
Northeast	47	7
South	47	8
Midwest	47	7
West	47	8

Source: Success sequence interviews, conducted between May and August 2022 by Mathematica.

Note: We asked Schlesinger Group to secure a sample as varied as possible in terms of race and ethnicity and gender identity. We did not set any recruitment target on employment status.

Data collection

The interviews were conducted using QualBoard, which allows participants to type in responses rather than speak as they would in face-to-face or telephone-based interviews. The platform allowed the participants to be asynchronous; that is, participants were not necessarily online at the same time as the interviewer, and participants could log in and out of the interview at their convenience. The flexibility offered by the platform helped in recruiting parents of young children, participants with full-time or multiple jobs, and current students. It also enabled participants to remain anonymous to the Mathematica team (identified only by first name and last initial) and not bound by physical location. Upon completing the interviews, participants received gift cards to thank them for their participation.

Topics covered in the interview

The interview was divided into sections covering five main topics: education, employment and work experience, family life, financial status, and final thoughts, as summarized in Figure A.1. The topics largely align with the four major milestones in the success sequence model, with marriage and childbearing included as part of the family life topic.

Figure A.1. Snapshot of topics covered in success sequence interviews

	Education	Highest level of education; date of degree completion; plans post high school; paths taken to complete postsecondary education; financial supports received for college or post-graduate degrees; GED and other alternative degree completion and associated factors; perceived impact of education on financial situation; future education plans; mental health, physical health, and any barriers faced in implementing plans and pursuing education.
	Employment and work experience	Current employment or unemployment; date of first full-time job; hours worked in current job; multiple-job status and factors behind holding more than one job; tenure at current job and path taken; reason for unemployment and type of job searched; mental health, physical health, or other barriers that have prevented pursuit of employment; impacts of 2008 recession and COVID-19 on employment.
	Family life	Relationship history (marriage and cohabitation), sexual orientation; (if married) whether they got married when they wanted to, what made them and their spouse decide to get married, and what impact marriage, divorce, or separation has had on their financial situation overall; education and employment experience of spouse/partner; (if not married) plans for marriage and factors influencing their decision; (if has a child) number of children; ages of children; circumstances and thoughts surrounding them at the time of first child; any financial impacts of having a child; (for childless participants) plans for childbearing and factors and circumstances that might affect these plans. Household composition.
	Financial status	Homeownership, debt, access to health insurance, ability to meet monthly expenses and save money, reliance on family and friends for financial or other supports, and household and personal incomes for 2021; whether and how the COVID-19 pandemic changed their financial well-being.
	Final thoughts	Thinking about the trajectory of their life, what the respondent sees coming next; additional factors not mentioned before.

Coding factors surrounding milestone completion

Analytic matrices and identification of factors associated with milestone completion

Developing the codes and subcodes

The team coded and analyzed data by using the Framework Analysis Method, developed by Jane Ritchie

and Jane Lewis to analyze qualitative data in applied research contexts (Gale et al. 2013). The framework includes five steps: data familiarization, identifying a thematic framework, coding (indexing) the data against the framework, charting to summarize the indexed data, and mapping and interpreting patterns in the data (Goldsmith 2021). The study team familiarized itself with the data during several brainstorming sessions in which coders discussed what they were seeing in the data. The team identified themes based on these discussions, the interview protocol, and the research questions. The coding team developed the codes and subcodes to categorize responses based on how participant responses indicated a facilitator or a barrier to achieving a milestone. For each question, we coded the responses for a specific milestone and aligned it to the research questions. We coded each response in the code that affected the milestone and in the subcode most responsible for affecting the milestone. For example, a response describing the role of family emotional support in a marriage was coded in the code "Family" and subcode "Family emotional support" within the marriage milestone.

Each probe and follow-up response within a question were also coded within the same milestone but could be coded in different codes. For example, if a probe in a question about marriage yielded a response that named family and a subsequent probe yielded a response that named friends, we coded the responses "Family" and "Friends," respectively.

Training and using the codebook

Before coding, the coding team reviewed the definitions of the codes and subcodes. The team discussed such issues as how to code longer sections and how to assign subcodes when a portion of a response could be coded into two codes. For example, if a participant said, "My wife and I both have good jobs that allow us to save money," the subcodes "Personal" and "Partner/support" could be appropriate. The coding team decided that for phrases using "we," the code would be "Personal"; when the phrasing referred only to the spouse ("My spouse makes good money"), the code would be "Partner/spouse."

Coders reviewed how to code each interview in batches by sequences of completed milestones. They also reviewed how to code for a milestone, a code, and a subcode. For example, a response in the education milestone could be coded within the "Personal" code, in the "Personal health" subcode. Coders also discussed how to assign subcodes to responses within the same code—for example, whether to choose personal finances instead of personal values for a response describing financial decisions. The coding team also agreed to ask other team members to confirm coding decisions when needed. The only coded passages were those that answered research questions. Passages with responses such as "I don't know" and "No comment" were not coded.

After each interview, interviewers coded the success sequence path and the participant's economic self-sufficiency status. The initial round of response coding used Insight tags in Qualboard.

Using analytic matrices to chart the data

After the initial round of coding, the responses were added to analytic matrices for each milestone (education, employment, marriage, and childbearing) and for economic self-sufficiency. Each analytic matrix included all the codes and subcodes, such as "Family" as code, and "Financial support from family," "Emotional support from family," "Family health," "Family values," and "Support for child care and caregiving" as subcodes. During this stage of systematically organizing coded responses into the analytic

matrices, valences were added to indicate a facilitator (+), a barrier (-), or a neutral response (/). For example, for factors influencing the completion of the education milestone, we coded the response "Primarily financing my education was the biggest barrier" as a barrier, and we coded the response "My mom also cosigned my student loans" as a facilitator.

Identifying milestones, pathways, and middle-income status using interview data

Identifying milestones

We asked participants to provide the month and year for each milestone they had completed, including high school graduation, first full-time employment, first marriage, and birth of first child.

For high school graduation, we counted participants whose highest education was a high school diploma or higher as achieving the high school education milestone and asked those participants to provide the month and year of their high school graduation. We did not ask participants with a GED or alternative high school diploma this question and did not count them as achieving Milestone 1. We excluded GED receipt from our primary definition of this milestone because GED recipients tend to have different outcomes than people who receive high school diplomas (Ewert 2012). Some participants could not remember the exact month of their high school graduation and provided estimates such as "May/June 2009."

For employment, we asked participants if they had ever worked full time, defined as at least 35 hours a week, at a paying job while not in school full time; we instructed them to disregard any summer jobs. We counted participants who answered "Yes" as achieving the full-time employment milestone and asked them to provide the month and year in which they started their first full-time job. Some participants struggled to recall details about the month in which they started their first full-time job and were able to provide only the season (that is, "summer 2008") or the year for the milestone.

For marriage, we asked participants if they had ever married. We counted participants who answered "Yes" as achieving the marriage milestone and asked them to provide the month and year in which they were first married.

For childbearing, we asked participants if they had children, including biological, foster, and adopted children. We counted participants who answered "Yes" as achieving Milestone 4 and asked them to provide the month and year in which their first child was born. Interviewers asked follow-up questions of participants who indicated that children were fostered or adopted to ascertain the month and year in which the children became part of participants' households; for these alternative family structures, the month and year the child(ren) entered the home was the date for the childbearing milestone.

Identifying pathways

Interviewers used probes to clarify any unclear or complex milestone trajectories. For example, several participants graduated from high school and began full-time employment within the same month and year, and some participants got married and had their first child within the same month and year. In situations like these, interviewers asked probing questions to clarify the order of these near-simultaneous milestones. Interviewers also probed participants who struggled to remember the exact month and year in

which they completed a particular milestone, asking follow-up questions designed to ascertain the order of the milestones, such as "Was that before or after your first child was born?"

Once we had approximate dates for each milestone, interviewers assigned each participant a numeric sequence (for example, 2, 1, 3, 4) to represent the order in which a participant completed milestones. The interview lead performed quality assurance checks on each sequence to ensure accuracy. With the sequences finalized, the interview lead added an indicator for each participant as to whether the participant followed or was on track to follow the success sequence— participants with a milestone sequence of 1, 2; 1, 2, 3; or 1, 2, 3, 4—or not. In our interview sample, 125 participants followed or were on track to follow the success sequence, whereas 100 participants had deviated from it.[9]

Determining economic self-sufficiency

All participants were required to provide ranges on the recruitment screener for their household and personal incomes before taxes and deductions for 2021. During the interview, we asked participants again to provide a range for their household and personal incomes before taxes and deductions for 2021, though the ranges were narrower for the lower and higher income categories than on the recruitment screener. Participants were able to respond to these questions in the interview by saying that they did not know or preferred not to disclose their household or personal incomes; for these participants, we used the broader income range captured on the recruitment screener for economic analyses. In Table A.5, we provide a comparison of the household income data gathered on the recruitment screener and the household income data gathered in the interview.

In the family life section of the interview, we collected information on the number of adults and children in the participant's household and categories of those individuals (such as spouse/partner, mother, father, unrelated roommates, and so on). We used the information to determine each participant's household size. For purposes of our economic well-being analyses, we decided to count participants who lived only with roommates, participants who were currently experiencing homelessness, and a participant who worked as a live-in nanny as households of one and replaced their provided household income information with their provided personal income information.

To determine each participant's poverty status, we compared each participant's household income to 100 percent of the 2021 federal poverty guideline[10] for a household of the participant's size to determine whether the participant had escaped poverty. We discovered that 14 participants (6.2 percent) had not escaped poverty, whereas 206 participants (91.6 percent) were near or over the poverty line. The remaining five participants' poverty status could not be determined with the household income range available to us.

To determine each participant's middle-class status, we compared each participant's household income to 300 percent of the 2021 federal poverty guideline for a household of the participant's size. We discovered

[9] Two participants who had completed only Milestone 1 were counted as deviating from the success sequence, as they had not completed any additional milestones.

[10] Source: https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2021-poverty-guidelines.

that 89 participants (39.6 percent) had not achieved middle-class status, whereas 105 participants (46.7 percent) were near or over 300 percent of the federal poverty guideline. The remaining 31 participants' middle-class status could not be determined with the household income range available to us.

Table A.5. 2021 household income for interview participants

Household income	English-language participants	Spanish-language participants	All participants
As collected on recruitment screener			
Less than $24,999	24	5	29
$25,000 to $49,000	41	10	51
$50,000 to $74,999	40	10	50
$75,000 or more	90	5	95
As collected during interview			
Less than $9,999	4	0	4
$10,000 to $14,999	4	0	4
$15,000 to $19,999	8	1	9
$20,000 to $24,999	7	2	9
$25,000 to $29,999	8	1	9
$30,000 to $39,999	12	2	14
$40,000 to $49,999	1	8	24
$50,000 to $74,999	40	10	50
$75,000 to $99,999	34	4	38
$100,000 to $149,999	27	1	28
$150,000 to $199,999	20	0	20
$200,000 or more	9	0	9
Don't know or prefer not to answer	6	1	7

Source: Success sequence interviews, conducted between May and August 2022 by Mathematica.

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Appendix B

Supplementary Tables and Figures

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The tables and figures in this appendix provide additional information on our data and findings. We begin with the characteristics of the analytic samples we used in the quantitative and qualitative components of our analysis (Tables B.1 and B.2). Next, we present the unique pathways sample members followed in each of our data sources (Figures B.1 and B.2). We detail our findings on factors associated with non-poverty status, as an alternative to middle-class status, which is our main measure of economic self-sufficiency in this report (Figure B.3). Finally, the appendix provides results from our full regression models for the results presented in Tables B.3 and B.4.

Table B.1. Characteristics of respondents in the NLSY97 analytic sample

	Percentage
Gender	
Female	48.6
Race/ethnicity	
Non-Hispanic White	67.3
Non-Hispanic Black	15.4
Hispanic	12.6
Geographic region of residence	
Northeast	18.0
North Central	45.0
South	34.2
West	20.8
Parental education	
High school education or less	42.8
At least some college education	57.2

Source: National Longitudinal Survey of Youth, 1997 Cohort (NLSY97), weighted data.

Note: The NLSY97 sample was limited to 7,049 individuals with data available to measure milestone completion through age 30.

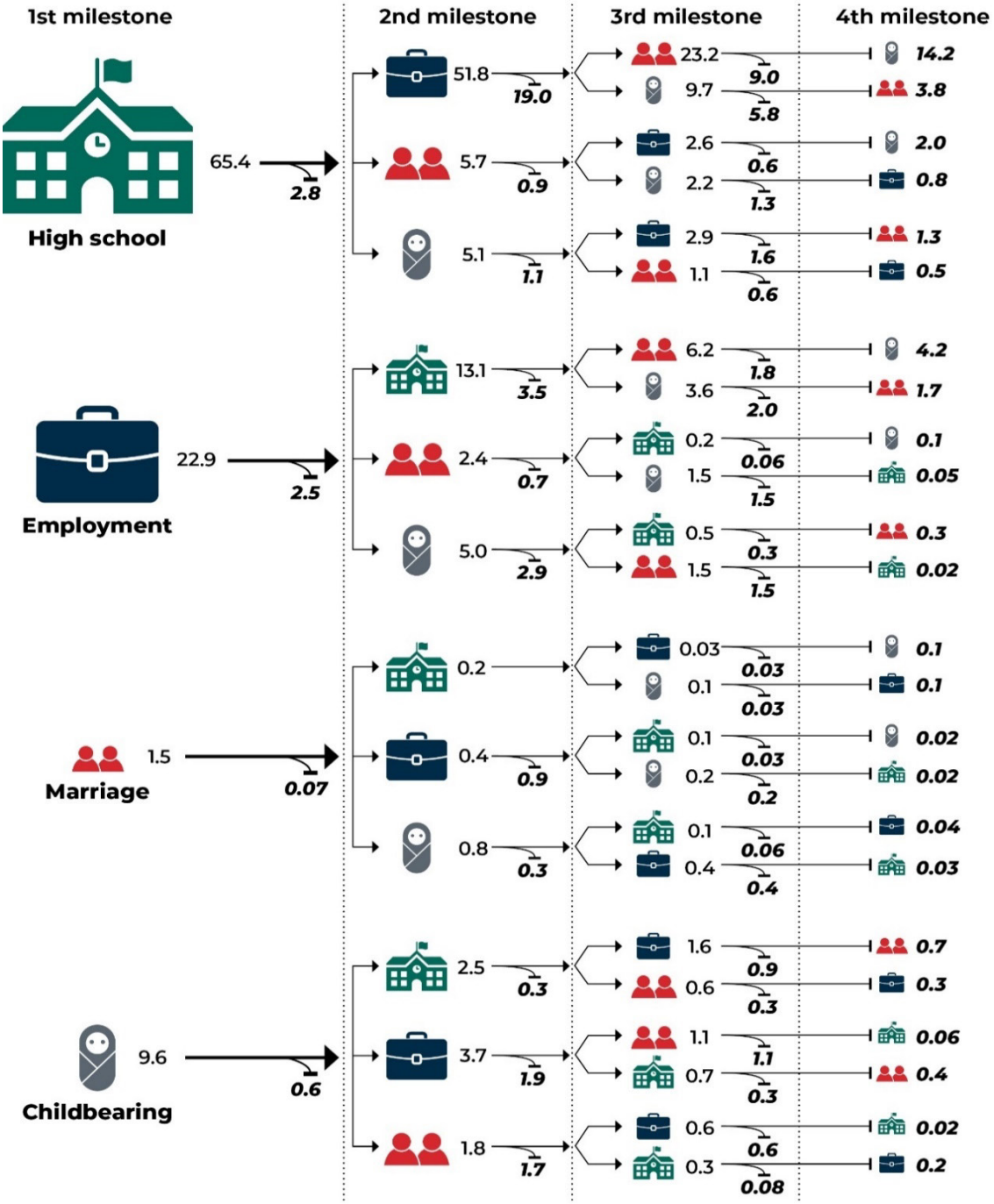
Table B.2. Characteristics of respondents in the qualitative interview sample

	Number of participants	Percentage of participants
Gender identity and sexual orientation		
Male	103	45.8
Female	121	53.8
Straight	182	80.9
Race/ethnicity		
Non-Hispanic White	88	39.1
Non-Hispanic Black	42	18.7
Hispanic	68	30.2
Educational attainment		
High school diploma or equivalent or less	57	25.3
Some college, no degree	44	19.6
Associate degree	24	10.6
Vocational degree or certificate	7	3.1
Bachelor's degree or higher	93	41.3
Household income		
$49,000 or less	80	35.6
$50,000 to $74,999	50	22.2
$75,000 or more	95	42.2
Geographic region of residence		
Northeast	46	20.4
Southeast	45	20.0
Southwest	31	13.8
Midwest	57	25.3
West	46	20.4
Primary language		
English	195	86.7
Spanish	30	13.3

Source: Success sequence interviews, conducted between May and August 2022 by Mathematica.

Note: Percentages refer to the share of each subgroup within the total sample. Analytic sample includes 225 respondents for whom we have complete information on milestone completion status and date and household income.

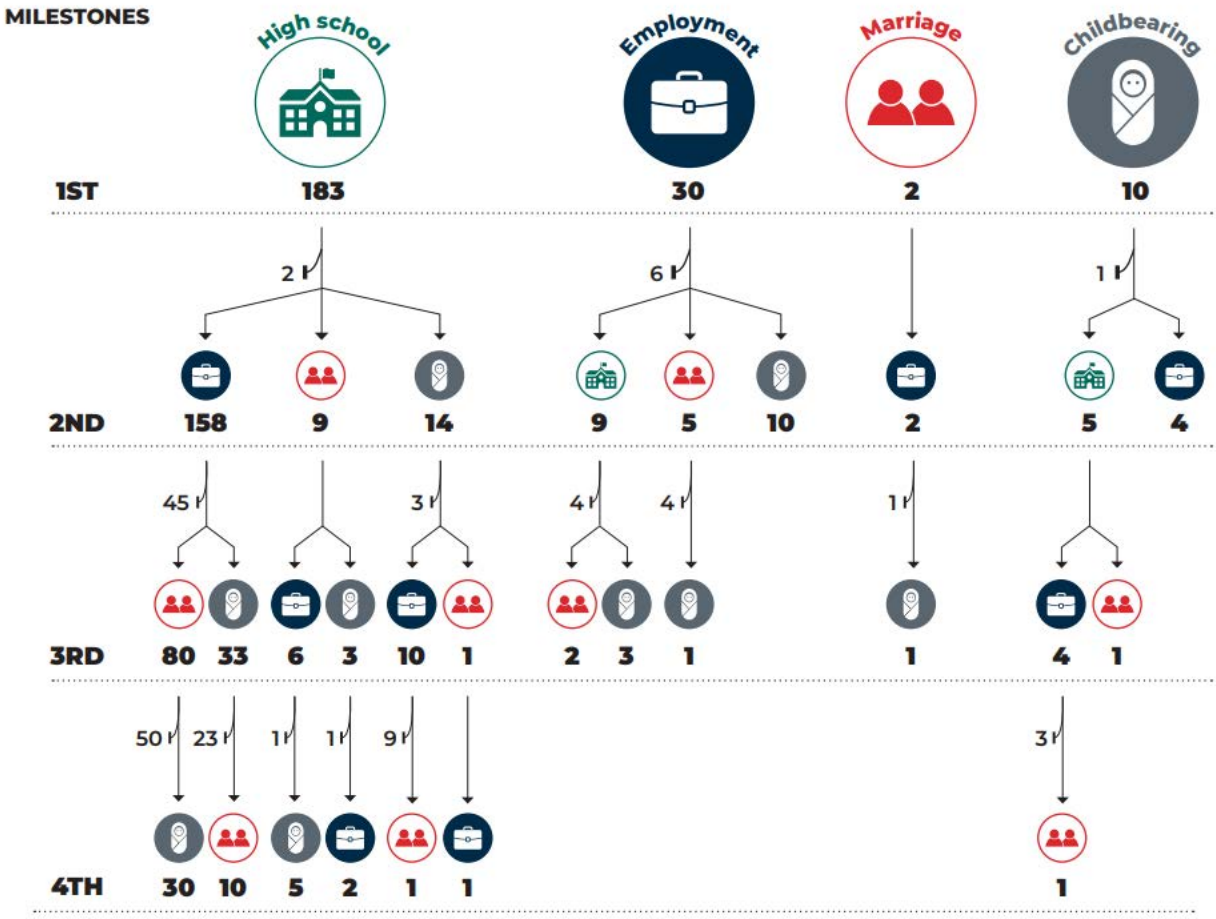
Figure B.1. Sequences of milestones by age 30 (by percentage completing)



Source: National Longitudinal Survey of Youth, 1997 Cohort (NLSY97).

Notes: The sample was limited to 7,049 individuals with data available through age 30. The figure represents the distribution of the NLSY97 sample by the 64 sequences of milestones observed in the data. On the left, the figure starts with the proportion of young adults who completed each of the four milestones as their first milestone. Moving toward the right, for each first milestone, the figure then shows the proportion of youth who completed each of the remaining three milestones as their second milestone, and so forth. Because not all respondents had completed all four milestones by age 30, the figure also shows curved downward lines for the proportion of young adults who completed only some of the milestones by age 30. The bold and italic indicate the proportions of young adults by the latest milestone they had completed by age 30.

Figure B.2. Sequences of milestones by ages 30 to 35 (by number completing)



Source: Success sequence interviews, conducted between May and August 2022 by Mathematica.

Notes: The sample includes 225 participants interviewed between June and August 2022 for whom we have complete information. The figure represents the distribution of the sample by the 30 sequences of milestones observed in the data. On the top, the figure starts with the number of young adults who completed each of the four milestones as their first milestone. Moving down, for each first milestone, the figure shows the number of youth who completed each of the remaining three milestones as their second milestone, and so forth. Given that not all respondents had completed all four milestones by age 30 to 35, the figure also shows curved lines for the number of young adults who completed only some milestones.

Figure B.3. Factors associated with non-poverty status

a. Participants who followed a success sequence pathway

b. Participants who did not follow a success sequence pathway

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: The percentages for factor categories indicate the share of the total variance in non-poverty status among those who *followed* (panel a) and *did not follow* (panel b) a success sequence pathway that can be explained by each factor category after accounting for the previous categories.

Table B.3 Results of step-wise variance decomposition for milestones and order

Coefficient	HS	E	M	C	SS
Pseudo r-squared (percent)	*47*	*17*	*11*	*18*	*24*
Factor category: Demographic characteristics					
Gender: Male	0.01 (0.11)	0.75 (0.10)	-0.38 (0.07)	-0.65 (0.07)	0.49 (0.07)
Race/ethnicity: Hispanic	0.19 (0.16)	-	-0.45 (0.12)	-0.17 (0.13)	-0.16 (0.11)
Race/ethnicity: Non-Hispanic Black	0.40 (0.16)	-0.15 (0.12)	-1.25 (0.09)	-0.15 (0.10)	-0.17 (0.10)
Race/ethnicity: Non-Hispanic other	-	-0.54 (0.21)	-0.69 (0.16)	-0.63 (0.17)	-
Year of birth: 1980	0.50 (0.16)	-	0.08 (0.10)	-0.05 (0.11)	-
Year of birth: 1982	-	-	-0.06 (0.10)	0.18 (0.15)	-
Year of birth: 1983	-	-	-0.18 (0.12)	0.06 (0.17)	-
Year of birth: 1984	-	-0.22 (0.12)	0.00 (0.12)	0.29 (0.18)	-
Year of birth: 1985	-	-0.07 (0.35)	-0.21 (0.24)	-0.03 (0.31)	-
Factor category: Parent and family characteristics					
Age of biological mother at first birth	-0.03 (0.02)	-0.03 (0.01)	-0.01 (0.05)	-0.00 (0.01)	-0.00 (0.01)
Age of biological mother at first birth, squared	-	-	-0.00 (0.00)	-	-
Age of biological mother at first birth: Missing	-0.18 (0.19)	-	-	-	-
Age of biological mother at respondent birth	-	-	-0.01 (0.01)	-0.02 (0.01)	-
Age of biological mother at respondent birth, squared	0.00 (0.00)	-	-	-	-
Age of biological mother at respondent birth: Missing	-	-0.17 (0.18)	-0.29 (0.13)	-0.18 (0.13)	-
Anyone in household received government benefits (for example, AFDC, food stamps, housing assistance)	-0.51 (0.14)	-0.50 (0.13)	0.19 (0.10)	1.30 (0.15)	-1.29 (0.19)
Biological mother age less than 20 at first birth	-0.19 (0.14)	-	-	0.01 (0.12)	-0.14 (0.12)
Biological mother age less than 20 at respondent birth	-	-0.30 (0.14)	-	0.23 (0.15)	-0.20 (0.14)
Both biological parents live in the household when respondent was age 2	-	0.60 (0.21)	-	-	0.32 (0.16)
Either parent has served prison sentence	-0.14 (0.16)	-0.03 (0.17)	-0.18 (0.13)	0.09 (0.14)	-0.16 (0.16)
Either parent has served prison sentence: Missing	-	0.64 (0.37)	-0.47 (0.36)	-0.59 (0.31)	-
Family/home risk index	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Father is not very supportive of respondent	-	-0.32 (0.21)	-0.15 (0.17)	-	0.10 (0.21)
Father is somewhat supportive of respondent	-	-	-0.07 (0.10)	-	-0.06 (0.12)
Father is supportive of respondent: Missing	-0.04 (0.14)	-0.13 (0.13)	-0.10 (0.11)	-	-
Father served in military	-	0.05 (0.11)	0.15 (0.07)	-	0.00 (0.08)
Father served in military: Missing	-0.20 (0.17)	-0.07 (0.16)	-0.09 (0.12)	-	-

Coefficient	HS	E	M	C	SS
Foreign born: Missing	-0.39 (0.27)	-	-	-	-
Foreign born: Not foreign born	-0.14 (0.18)	-	-	-0.14 (0.12)	-0.01 (0.13)
Household income	0.00 (0.00)	-	-	-0.00 (0.00)	0.00 (0.00)
Household income: Missing	0.09 (0.14)	-	-	0.21 (0.10)	-
Household income: Zero	-	-	-	-0.14 (0.15)	-
Household size (Wave 1)	-0.05 (0.03)	-0.01 (0.03)	-	0.07 (0.04)	-
Language spoken at home: English	-	-0.19 (0.16)	-0.13 (0.13)	-	-
Log of household income	-	0.02 (0.02)	-	-	-
Mother is not very supportive of respondent	-0.09 (0.27)	-0.32 (0.24)	0.41 (0.22)	-	-
Mother is somewhat supportive of respondent	0.13 (0.16)	-	0.08 (0.10)	0.09 (0.11)	0.04 (0.11)
Mother served in military	-	0.46 (0.39)	0.29 (0.20)	-0.31 (0.21)	-
Net worth of household according to parent	-	-	-	-0.00 (0.00)	-
Net worth of household according to parent: Missing	0.26 (0.19)	-	-	-0.11 (0.10)	0.09 (0.11)
Nonresponding parent 1's race/ethnicity: Hispanic	0.24 (0.25)	0.32 (0.26)	0.23 (0.15)	0.14 (0.19)	-
Nonresponding parent 1's race/ethnicity: Missing	0.02 (0.15)	-	-	-0.00 (0.08)	0.04 (0.09)
Nonresponding parent 1's race/ethnicity: Non-Hispanic Black	0.56 (0.23)	-	-	-	-
Nonresponding parent 2's race/ethnicity: Missing	-	0.69 (0.24)	-	-	0.34 (0.24)
Nonresponding parent 2's race/ethnicity: Non-Hispanic Black	-	-	-0.51 (0.28)	-	-
Number of children in household (Wave 1): Missing	-	-	-	0.05 (0.05)	-0.08 (0.03)
Number of parents in household: 0	-0.33 (0.21)	0.01 (0.23)	0.18 (0.17)	-	-0.12 (0.20)
Number of parents in household: 1	-	-	-0.06 (0.08)	-	-
Parent has long-term health problem limiting employment	-0.20 (0.15)	-0.05 (0.12)	-	-	-0.06 (0.11)
Parent's general health is fair or poor	0.06 (0.15)	-	0.10 (0.10)	-	0.12 (0.12)
Parent's spouse/partner has long-term health problem limiting employment	0.59 (0.22)	-0.18 (0.20)	-0.58 (0.13)	-0.26 (0.12)	-
Parent's spouse/partner has long-term health problem limiting employment: Missing	0.01 (0.16)	-0.11 (0.13)	-0.12 (0.09)	-	-
Parent's spouse/partner's general health is fair or poor	-0.17 (0.21)	0.43 (0.23)	0.20 (0.14)	-	-
Religion: Catholic	0.20 (0.13)	0.28 (0.13)	-0.11 (0.08)	-0.07 (0.08)	0.12 (0.08)
Religion: Non-religious	-0.43 (0.33)	-	-0.19 (0.18)	-	-
Religion: Other religion (not Christian)	0.43 (0.39)	-0.33 (0.25)	-0.14 (0.19)	-0.15 (0.19)	-

Coefficient	HS	E	M	C	SS
Residential father supportive of residential mother index	-0.03 (0.02)	-	-	0.01 (0.01)	-
Residential father's parenting style: Authoritarian	0.00 (0.13)	-0.18 (0.13)	-	-	-0.01 (0.14)
Residential father's parenting style: Missing	-	-	-	-	-0.12 (0.11)
Residential father's parenting style: Permissive	-	-	-0.06 (0.09)	-	-
Residential father's parenting style: Uninvolved	-	-	-0.14 (0.12)	-0.12 (0.10)	-
Residential mother supportive of residential father index	-	-0.04 (0.02)	0.03 (0.01)	0.02 (0.02)	-0.01 (0.01)
Residential mother's parenting style: Authoritarian	-	-0.13 (0.14)	-	0.09 (0.12)	-0.18 (0.13)
Residential mother's parenting style: Missing	-0.26 (0.29)	-	-	0.14 (0.22)	-0.02 (0.22)
Residential mother's parenting style: Permissive	-0.13 (0.11)	-	-0.13 (0.07)	-0.06 (0.07)	-
Residential mother's parenting style: Uninvolved	-0.22 (0.18)	0.20 (0.15)	-0.30 (0.12)	-	-
Residential/biological father has completed at least high school	0.29 (0.13)	0.20 (0.13)	-0.12 (0.08)	0.04 (0.09)	0.05 (0.10)
Residential/biological father has completed at least some college	-0.05 (0.16)	-	-	0.06 (0.09)	0.05 (0.09)
Residential/biological father has completed college	0.29 (0.24)	-0.50 (0.15)	-	-0.03 (0.11)	-0.07 (0.11)
Residential/biological father's education: Missing	-0.12 (0.15)	-0.29 (0.14)	-	-	-
Residential/biological mother has completed at least high school	0.27 (0.12)	0.03 (0.12)	0.13 (0.09)	0.05 (0.10)	0.02 (0.10)
Residential/biological mother has completed at least some college	0.17 (0.13)	-	-0.06 (0.07)	0.01 (0.08)	0.07 (0.09)
Residential/biological mother has completed college	0.25 (0.24)	-0.12 (0.15)	-	-0.37 (0.10)	0.11 (0.11)
Residential/biological mother's education: Missing	0.30 (0.22)	-0.01 (0.22)	-	-	-
Responding parent's race/ethnicity: Hispanic	-	-	0.22 (0.16)	0.14 (0.16)	-
Square root of net worth of household according to parent	0.00 (0.00)	-	-	-	0.00 (0.00)
Youth lives with both biological parents	0.18 (0.14)	-	-	-	-0.09 (0.09)
Factor category: Environmental characteristics					
At least 25% of peers belong to a gang	-0.07 (0.11)	-	-	0.24 (0.08)	-0.17 (0.09)
At least 25% of peers cut classes or school	-	-	-	-	0.23 (0.09)
At least 25% of peers do volunteer work	-0.11 (0.12)	-	-	0.06 (0.08)	-0.07 (0.07)
At least 25% of peers get drunk 1+ times a month	0.10 (0.14)	-	-	-	-

Coefficient	HS	E	M	C	SS
At least 25% of peers go to church regularly	0.06 (0.14)	-0.04 (0.14)	-	-	-0.03 (0.12)
At least 25% of peers have had sex	-0.19 (0.27)	0.15 (0.18)	-	0.00 (0.14)	-0.09 (0.15)
At least 25% of peers in sports, clubs, school activities	-	0.12 (0.26)	-	-	-
At least 25% of peers plan to go to college	-	-	-	-	0.35 (0.23)
At least 25% of peers smoke	-	0.15 (0.11)	-	-	-0.02 (0.10)
At least 50% of peers belong to a gang	-	-	-	-	-0.04 (0.15)
At least 50% of peers cut classes or school	0.02 (0.12)	-	-	-	-0.13 (0.09)
At least 50% of peers do volunteer work	-0.20 (0.14)	-	-	0.07 (0.08)	-
At least 50% of peers get drunk 1+ times a month	0.20 (0.14)	0.37 (0.12)	-	-	0.19 (0.10)
At least 50% of peers go to church regularly	-0.04 (0.11)	0.13 (0.11)	-	-0.06 (0.07)	-0.00 (0.08)
At least 50% of peers have had sex	-0.06 (0.20)	-	-	0.15 (0.11)	0.04 (0.11)
At least 50% of peers in sports, clubs, school activities	-	0.13 (0.16)	-	-	-
At least 50% of peers plan to go to college	-	-	-	-0.07 (0.10)	-
At least 50% of peers smoke	-0.00 (0.14)	-	-	-0.02 (0.08)	-0.11 (0.10)
At least 50% of peers use illegal drugs	-	-	-	-	0.24 (0.10)
At least 75% of peers belong to a gang	-0.23 (0.22)	0.09 (0.18)	-	-	-0.35 (0.24)
At least 75% of peers do volunteer work	-0.10 (0.17)	-0.35 (0.14)	-	-	-0.24 (0.12)
At least 75% of peers go to church regularly	-	-	-	0.01 (0.08)	0.05 (0.09)
At least 75% of peers in sports, clubs, school activities	0.19 (0.11)	-0.05 (0.12)	-	-	-
At least 75% of peers plan to go to college	-0.05 (0.11)	-	-	-0.05 (0.08)	-0.04 (0.08)
At least 75% of peers smoke	-0.28 (0.14)	-	-	-	-0.04 (0.10)
At least 75% of peers use illegal drugs	0.24 (0.16)	-	-	0.09 (0.10)	-0.12 (0.11)
At least 90% of peers belong to a gang	0.47 (0.33)	-	-	-	0.91 (0.35)
At least 90% of peers cut classes or school	-0.24 (0.17)	-	-	-	-
At least 90% of peers get drunk 1+ times a month	-	-	-	-	-0.06 (0.18)
At least 90% of peers go to church regularly	0.17 (0.23)	-0.22 (0.18)	-	-	-
At least 90% of peers have had sex	-0.46 (0.21)	-	-	0.15 (0.17)	-0.36 (0.19)
At least 90% of peers in sports, clubs, school activities	-0.14 (0.13)	0.21 (0.12)	-	-	0.12 (0.08)
At least 90% of peers plan to go to college	0.16 (0.15)	0.10 (0.12)	-0.22 (0.07)	-0.08 (0.09)	0.10 (0.09)
At least 90% of peers smoke	0.20 (0.19)	-0.22 (0.16)	-	0.15 (0.14)	-0.09 (0.15)
At least 90% of peers use illegal drugs	0.26 (0.19)	-	-	-	-
Census region: North Central	0.41 (0.13)	-0.19 (0.11)	-	-	-0.03 (0.09)
Census region: Northeast	0.31 (0.14)	-	-0.45 (0.08)	-0.21 (0.09)	0.18 (0.10)
Census region: West	0.31 (0.14)	-	-	-0.14 (0.09)	0.22 (0.10)
Enriching environment risk index	0.03 (0.07)	-	-	-0.17 (0.05)	0.13 (0.06)
Living in urban/rural area	-	-	0.14 (0.07)	0.16 (0.08)	-

Coefficient	HS	E	M	C	SS
Living in urban/rural area: Missing	-0.10 (0.21)	-	-	0.49 (0.19)	-0.30 (0.20)
Percent of peers belong to a gang: Missing	-	-	-	-0.34 (0.26)	-
Percent of peers use illegal drugs: Missing	-	-	-	-0.56 (0.22)	-
Percent of peers who do volunteer work: Missing	0.56 (0.53)	-0.46 (0.34)	-	0.38 (0.26)	-
Percent of peers who get drunk 1+ times a month: Missing	-	-0.38 (0.31)	-	-	-0.82 (0.31)
Percent of peers who go to church regularly: Missing	-0.36 (0.39)	-0.02 (0.33)	-	-	-
Percent of peers who have had sex: Missing	-0.21 (0.19)	-	-	-	-
Percent of peers who plan to go to college: Missing	-0.05 (0.49)	-0.29 (0.39)	-	0.56 (0.34)	-
Percent of peers who smoke: Missing	0.28 (0.40)	-	-	-	0.82 (0.41)
Physical environment risk index	-0.00 (0.00)	-	-	0.00 (0.00)	-0.00 (0.00)
School district size: At least 10,000	-	-	-	-	-0.20 (0.11)
School district size: At least 2,500	-0.07 (0.18)	-	-	-	-
School district size: At least 25,000	-	0.24 (0.12)	-	-	-
School district size: At least 5,000	-	-	-	-	0.24 (0.12)
School district size: Missing	-0.38 (0.10)	-0.01 (0.11)	-	0.09 (0.07)	-0.11 (0.09)
Youth reside in an MSA: In an MSA in central city	-	-	-	-0.09 (0.08)	-0.13 (0.08)
Youth reside in an MSA: Missing	-	-	-	-0.77 (0.30)	0.09 (0.36)
Youth reside in an MSA: Not in an MSA	-0.19 (0.13)	-0.08 (0.12)	-	-0.06 (0.09)	-0.21 (0.09)
Factor category: Childhood characteristics and experiences					
Attended public primary school	-2.15 (0.66)	-	-	-	-0.12 (0.20)
Both biological parents live in the household when respondent was age 12	0.33 (0.20)	-	-	-	-
Ever repeated a grade	-0.63 (0.12)	-0.17 (0.12)	-0.04 (0.09)	0.09 (0.10)	-0.36 (0.11)
Ever seen someone shot by age 12	-0.17 (0.14)	-	0.20 (0.10)	0.21 (0.11)	0.08 (0.12)
Ever seen someone shot by age 12: Missing	-	-	-0.25 (0.25)	-	-
House or apartment broken into before age 12	-0.10 (0.13)	-	-0.09 (0.08)	-	-
House or apartment broken into before age 12: Missing	-	-	-	-	-0.06 (0.27)
Index of family routines	-	-	-	0.01 (0.01)	-0.02 (0.01)
Index of family routines: Missing	-	-	-	-	0.21 (0.17)
Respondent changed schools from ages 5–12	-	-	-	-	0.62 (0.22)
Respondent has a learning disability	-	-	-0.20 (0.18)	-	0.09 (0.23)
Respondent has a learning disability: Missing	-	-	-	-	0.03 (0.15)
Respondent has a mental or emotional limiting condition	0.19 (0.25)	-	-	-	0.48 (0.28)

Coefficient	HS	E	M	C	SS
Respondent has any limiting condition	0.04 (0.15)	-0.48 (0.12)	-0.02 (0.14)	-0.25 (0.11)	-0.23 (0.21)
School type: Public	-	-	-	-	-0.12 (0.14)
Spent 20+ hours in child care in first year of life	-	0.30 (0.11)	0.06 (0.07)	0.07 (0.07)	0.10 (0.08)
Victim of bullying before age 12	-	-0.18 (0.11)	-0.01 (0.08)	-0.13 (0.08)	-0.04 (0.09)
Victim of bullying before age 12: Missing	-	-0.23 (0.30)	-	-0.42 (0.25)	-
Youth ever live through hard times	-	-	-0.18 (0.14)	-0.13 (0.15)	-0.04 (0.18)
Factor category: Cognitive ability measured at adolescence					
ASVAB score	0.01 (0.00)	-	-	-0.00 (0.00)	-0.00 (0.00)
ASVAB score: Missing	-0.45 (0.12)	-0.04 (0.11)	-	0.03 (0.08)	-0.06 (0.09)
Didn't take ACT	-1.90 (0.30)	-0.15 (0.14)	-	0.10 (0.08)	-0.27 (0.09)
Didn't take SAT	-1.54 (0.22)	-0.17 (0.13)	-	0.37 (0.08)	-0.55 (0.09)
Highest ACT score	-0.58 (0.45)	-0.44 (0.14)	-	-0.08 (0.08)	-0.21 (0.08)
Highest ACT score: Unexplained missing	-1.11 (0.39)	0.46 (0.28)	-	-	-0.28 (0.17)
Log of ASVAB score	0.08 (0.09)	0.17 (0.05)	-	-0.09 (0.07)	0.28 (0.10)
SAT math score	-	-	-	0.11 (0.06)	0.00 (0.06)
SAT math score: Unexplained missing	-0.87 (0.49)	-	-	0.19 (0.12)	0.05 (0.35)
SAT verbal score	-0.17 (0.17)	-0.08 (0.09)	-	-0.17 (0.06)	-0.01 (0.07)
SAT verbal score: Unexplained missing	-0.24 (0.51)	-0.16 (0.18)	-	-	-0.34 (0.34)
Factor category: Adolescent characteristics, behaviors, and relationships					
Age at first sex	-	-	-0.03 (0.02)	-0.01 (0.02)	-
Age first date is between 12 and 14	-	-	-	0.11 (0.07)	-
Age first date: Explained missing	-	-0.46 (0.17)	-0.67 (0.14)	-0.75 (0.15)	-
Age first date: Unexplained missing	-	-	-1.09 (0.24)	-0.73 (0.24)	-
Age first time drink alcohol	-	-	-	0.06 (0.03)	-
Age first time use cocaine or hard drugs: Unexplained missing	-	-	0.20 (0.24)	0.28 (0.24)	-
Age first time use marijuana: Unexplained missing	-	-0.28 (0.29)	-	-	-
Age when puberty began	-	-	-0.06 (0.03)	-	-
Behavioral/emotional problems scale, youth report	-	-	-	0.05 (0.03)	-
Belief about what method best prevents pregnancy: Birth control pill	-	-	-	0.22 (0.15)	-0.37 (0.15)
Belief about what method best prevents pregnancy: Withdrawal	-	-	-	-	0.19 (0.13)
Belief on the best method for STD prevention: Withdrawal	-	-	0.23 (0.14)	0.26 (0.15)	-
Believes school discipline is fair	-0.25 (0.11)	-	-0.10 (0.07)	-	-0.16 (0.08)
Believes school grading is fair	-	-	-	0.08 (0.09)	-
Believes teachers are interested in students	-	-	-	0.15 (0.10)	-
Delinquency score index, youth report	-0.01 (0.04)	-	-0.03 (0.03)	-0.05 (0.03)	-

Coefficient	HS	E	M	C	SS
Did the respondent use birth control at first sex	-	-	-	0.09 (0.09)	-0.21 (0.11)
Did the respondent use birth control at first sex: Unexplained missing	-	-	-0.10 (0.12)	-	-
Did the respondent drink alcohol before age 18: Missing	-0.15 (0.16)	-	-	-	-
Did the respondent smoke an entire cigarette before age 18	-	-	-	-0.01 (0.19)	-
Did the respondent smoke an entire cigarette before age 18: Missing	-	-	-	-0.18 (0.13)	-
Did the respondent use marijuana before age 18	-	-	-	-0.06 (0.19)	-
Did the respondent use other drugs before age 18	-0.25 (0.18)	-	-	0.26 (0.14)	-
Did the respondent use other drugs before age 18: Missing	-0.16 (0.17)	-	-	-	-
Didn't smoke a cigarette	-	-	-0.12 (0.07)	-0.22 (0.18)	-
Didn't use cocaine or hard drugs	-	-	-0.24 (0.12)	-	0.12 (0.13)
Disruptions by other students get in the way of learning	-	-	-	0.08 (0.06)	-
Ever belonged to gang	-	-	-	0.19 (0.12)	-0.06 (0.14)
Ever employed as a teen	0.46 (0.18)	0.38 (0.16)	0.15 (0.14)	0.29 (0.15)	-
Ever employed as a teen for at least 50 weeks	0.33 (0.11)	0.94 (0.10)	0.15 (0.07)	0.02 (0.08)	-0.19 (0.07)
Ever gotten someone pregnant	-	-	-	0.74 (0.24)	-1.46 (0.39)
Ever had sex	-0.27 (0.11)	-	-	0.21 (0.09)	-0.33 (0.09)
Ever hurt at school: At least once	-	-0.25 (0.11)	0.15 (0.08)	-	-0.14 (0.09)
Ever hurt at school: Missing	-0.69 (0.55)	-	-	-	-
Ever hurt at school: Number of times	-	-0.01 (0.01)	-0.01 (0.01)	-	-
Ever in a fight at school	-	-	-	0.31 (0.10)	-0.15 (0.11)
Ever late to school without excuse	-	-	-0.25 (0.06)	-0.11 (0.07)	0.15 (0.08)
Ever run away from home	-	-0.26 (0.13)	-	-	-
Ever seen someone shot ages 12–18	-	-	-	0.28 (0.11)	-0.27 (0.12)
Ever seen someone shot ages 12–18: Missing	-	-	-	-0.35 (0.19)	-
Ever suspended from school	-0.30 (0.10)	-	-0.18 (0.08)	-	-0.15 (0.09)
Expected likelihood of attending college: 25% or less	-	-	-	-	-0.37 (0.24)
Has never used marijuana	-	-	-	0.20 (0.18)	-
Hasn't had sex by age 18	0.31 (0.17)	-	-0.08 (0.13)	-0.45 (0.10)	0.24 (0.10)
Log of the number of sexual partners by age 18	-0.15 (0.07)	-	-	0.04 (0.05)	-0.15 (0.06)
No previous pregnancies	0.34 (0.23)	-	-	-	0.34 (0.13)

Coefficient	HS	E	M	C	SS
Not had sex yet	-	-	-	-	0.12 (0.09)
Number days used marijuana in last 30 days	-0.01 (0.01)	-	-0.02 (0.01)	-0.01 (0.00)	-
Number of days absent from school	-0.01 (0.01)	-	-	-0.01 (0.00)	-0.02 (0.01)
Number of non-live births from previous pregnancies	1.28 (0.69)	-	-0.65 (0.48)	-	-
Number of non-live births from previous pregnancies: Missing	-	-	-	-0.57 (0.30)	-
Number of teen jobs: 2 or more	-	0.27 (0.11)	0.10 (0.08)	0.04 (0.09)	-
Number of teen jobs: 5 or more	-	-	0.09 (0.08)	0.19 (0.09)	-
Number of times changed schools from ages 13–18	-0.13 (0.04)	-	-	-0.05 (0.03)	-0.05 (0.03)
Number of times ever pregnant: Unexplained missing	-0.33 (0.28)	-	-	-	-
Number of times late to school without excuse	-	-	-	-0.01 (0.01)	0.01 (0.01)
Number of times late to school without excuse: Missing	-	-	-	0.35 (0.29)	-
Number of times used marijuana before or during school/work: Unexplained missing	-	-0.14 (0.33)	0.34 (0.16)	-	-
Optimism scale	-	-	0.02 (0.02)	-	-
Parental monitoring by residential father	-	-	0.02 (0.01)	0.01 (0.01)	-
Parental monitoring by residential mother	0.07 (0.02)	-	0.02 (0.01)	0.03 (0.02)	-
Percent chance has a college degree by Age 30, parent report	0.01 (0.00)	-	-	0.00 (0.00)	-
Percent chance has a college degree by Age 30, youth report	0.00 (0.00)	-	-	-	0.00 (0.00)
Percent chance in jail by age 20, parent report	-	-0.01 (0.01)	-0.01 (0.00)	-0.01 (0.01)	-
Percent chance in jail by age 20, youth report	-0.01 (0.01)	-	-	-0.01 (0.00)	-0.01 (0.00)
Percent chance works 20+ hours per week by age 30, parent report	-	-	-	0.00 (0.00)	-
Percent chance youth arrested by next year, youth report	-0.00 (0.00)	-	-0.00 (0.00)	-0.00 (0.00)	-
Percent chance youth arrested by next year, youth report: Missing	-	-	-	0.37 (0.20)	-
Percent chance youth get someone pregnant by next year, youth report	-	-	0.00 (0.00)	-	-
Percent chance youth has high school diploma by age 20, youth report	0.00 (0.00)	-	-	-	-
Percent chance youth is a parent by age 20, parent report	-	-	-	0.00 (0.00)	-
Percent chance youth is a parent by age 20, youth report	-	-	0.01 (0.00)	0.01 (0.00)	-

Coefficient	HS	E	M	C	SS
Percent chance youth is in school next year, parent report	0.00 (0.00)	-	-	-	-
Percent chance youth is in school next year, youth report	0.01 (0.00)	-	-	-0.00 (0.00)	0.01 (0.00)
Percent chance youth is pregnant by next year, youth report	-	-	-	0.01 (0.00)	-
Respondent has not used marijuana in the last month	-0.00 (0.13)	-	0.28 (0.08)	0.08 (0.10)	-
Respondent indicated limit breaking in the limit-breaking index	-0.19 (0.13)	-	-0.14 (0.09)	-	-0.14 (0.09)
Self-reported general health at age 18: Excellent	-	-	0.14 (0.07)	-	0.17 (0.07)
Self-reported general health at age 18: Good or better	-	-	0.13 (0.13)	0.36 (0.14)	-
Self-reported general health at age 18: Very good or better	-	-	0.07 (0.08)	0.04 (0.07)	-
Substance use index, youth report	-0.14 (0.06)	-	-	-0.04 (0.04)	-
Summary of grades received in high school	0.34 (0.05)	-	-	-	0.09 (0.03)
Summary of grades received in high school: Missing	0.57 (0.11)	-	-	0.11 (0.07)	-
Summary of grades received in middle school	0.19 (0.03)	-	0.05 (0.02)	-	0.07 (0.03)
Summary of grades received in middle school: Missing	-	-	-	-	0.78 (0.28)
There is a lot of cheating at school	-	-	-	0.10 (0.07)	-
Used a condom at first sex: Unexplained missing	-	-0.20 (0.28)	-	-	-
Victim of bullying ages 12–18	-	-	-0.15 (0.10)	-0.31 (0.10)	-
Respondent arrested by age 18	-0.23 (0.12)	-0.27 (0.13)	-	0.29 (0.10)	-0.15 (0.11)
Respondent charged with an assault by age 18	-	-0.53 (0.22)	-	-	-0.45 (0.34)
Respondent convicted of an offense by age 18	-0.28 (0.20)	-	-0.24 (0.18)	-0.28 (0.18)	-
Respondent charged with a property offense by age 18	-	-	-0.15 (0.18)	-	-
Was the respondent charged with a property offense by age 18	-	-	-	-	-0.26 (0.29)
Youth mental health scale	-	-	-	0.05 (0.02)	-

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: Results represent the final regression of the step-wise variance decomposition. Standard errors are in parentheses. See Appendix A for a description of model specifications and covariate selection criteria.

AFDC = Aid to Families with Dependent Children; ASVAB = Armed Services Vocational Aptitude Battery; C = childbearing; E = employment; HS = high school; M = marriage; MSA = metropolitan statistical area; SS = success sequence pathway full model; STD = sexually transmitted disease.

Table B.4 Results of step-wise variance decomposition for economic self-sufficiency

Coefficient	Did not follow the success sequence	Followed success sequence
Pseudo r-squared (percent)	15	17
Factor category: Demographic characteristics		
Gender: Male	0.06 (0.11)	0.46 (0.10)
Race/ethnicity: Hispanic	0.17 (0.16)	-0.49 (0.14)
Race/ethnicity: Non-Hispanic Black	-0.14 (0.15)	-0.86 (0.20)
Race/ethnicity: Non-Hispanic other	0.41 (0.27)	-
Year of birth: 1980	-	0.13 (0.13)
Year of birth: 1982	0.25 (0.15)	-0.06 (0.16)
Year of birth: 1983	0.08 (0.15)	-0.07 (0.18)
Year of birth: 1984	-	-0.02 (0.18)
Year of birth: 1985	-	0.36 (0.38)
Factor category: Parent and family characteristics		
Age of biological mother at first birth	0.03 (0.01)	0.01 (0.02)
Age of biological mother at first birth: Missing	-	-0.21 (0.17)
Age of biological mother at respondent birth, squared	-	-0.00 (0.00)
Anyone in household received government benefits (for example, AFDC, food stamps, housing assistance)	0.11 (0.41)	-0.43 (0.13)
Biological mother age less than 20 at first birth	-	-0.09 (0.12)
Both biological parents live in the household when respondent was age 2	0.36 (0.26)	-
Both biological parents live in the household when respondent was age 2: Missing	-	-0.24 (0.13)
Either parent has served prison sentence: Missing	-	0.57 (0.41)
Family/home risk index	0.00 (0.00)	-0.00 (0.00)
Father is somewhat supportive of respondent	-0.26 (0.13)	-
Father is supportive of respondent: Missing	-	-0.10 (0.13)
Father served in military	-	-0.03 (0.10)
Father served in military: Missing	-	-0.26 (0.18)
Foreign born: Not foreign born	-	0.35 (0.15)
Household income	0.00 (0.00)	0.00 (0.00)
Household size (Wave 1)	-0.05 (0.04)	-0.04 (0.03)
Mother is not very supportive of respondent	-	-0.63 (0.29)
Mother is supportive of respondent: Missing	-	-0.18 (0.25)
Mother served in military	-0.36 (0.35)	0.35 (0.33)
Net worth of household according to parent	0.00 (0.00)	-
Net worth of household according to parent: Missing	0.22 (0.14)	0.26 (0.15)
Nonresponding parent 1's race/ethnicity: Hispanic	-	0.11 (0.23)
Nonresponding parent 1's race/ethnicity: Missing	-	-0.04 (0.11)
Nonresponding parent 2's race/ethnicity: Missing	-	-0.42 (0.27)
Nonresponding parent 2's race/ethnicity: Non-Hispanic Black	-	-0.51 (0.42)
Number of parents in household: 0	-	-0.14 (0.24)

Coefficient	Did not follow the success sequence	Followed success sequence
Number of parents in household: 1	-0.16 (0.28)	-
Parent has long-term health problem limiting employment	-	-0.05 (0.13)
Parent's general health is fair or poor	-0.18 (0.19)	-0.11 (0.14)
Parent's spouse/partner has long-term health problem limiting employment	-	-0.09 (0.17)
Parent's spouse/partner's general health is fair or poor	-0.39 (0.23)	-0.09 (0.17)
Religion: Catholic	0.24 (0.13)	0.32 (0.11)
Religion: Non-religious	-	-0.35 (0.28)
Religion: Other religion (not Christian)	-	-0.50 (0.26)
Residential father supportive of residential mother index: Missing	-0.39 (0.14)	-
Residential father's parenting style: Authoritarian	-	-0.17 (0.12)
Residential father's parenting style: Permissive	-	-0.23 (0.11)
Residential mother supportive of residential father index	-	-0.02 (0.02)
Residential mother supportive of residential father index: Missing	-	0.20 (0.13)
Residential mother's parenting style: Permissive	-0.21 (0.11)	-
Residential mother's parenting style: Uninvolved	-	0.26 (0.14)
Residential/biological father has completed at least high school	-	0.02 (0.12)
Residential/biological father has completed at least some college	-	0.10 (0.11)
Residential/biological father's education: Missing	-0.64 (0.19)	-0.15 (0.14)
Residential/biological mother has completed at least high school	-	0.20 (0.12)
Residential/biological mother has completed at least some college	-	-0.10 (0.11)
Residential/biological mother has completed college	0.28 (0.13)	-0.01 (0.15)
Residential/biological mother's education: Missing	0.87 (0.28)	-0.14 (0.20)
Responding parent's race/ethnicity: Non-Hispanic Black	-	0.47 (0.21)
Square root of net worth of household according to parent	-	0.00 (0.00)
Youth lives with both biological parents	-0.15 (0.29)	0.21 (0.12)
Factor category: Childhood characteristics and experiences		
At least 25% of peers belong to a gang	-	-0.17 (0.09)
At least 25% of peers do volunteer work	0.28 (0.11)	-0.21 (0.10)
At least 25% of peers get drunk 1+ times a month	-	0.19 (0.12)
At least 25% of peers have had sex	-	0.35 (0.18)
At least 25% of peers smoke	-	0.19 (0.13)
At least 25% of peers use illegal drugs	-	0.21 (0.11)
At least 50% of peers do volunteer work	-	-0.19 (0.11)
At least 50% of peers plan to go to college	-	0.13 (0.12)
At least 50% of peers smoke	-	-0.22 (0.11)
At least 75% of peers do volunteer work	-0.53 (0.18)	-
At least 75% of peers plan to go to college	-	0.14 (0.09)
At least 90% of peers do volunteer work	-	-0.29 (0.22)
At least 90% of peers get drunk 1+ times a month	-	-0.37 (0.18)
At least 90% of peers have had sex	-	0.41 (0.17)

Coefficient	Did not follow the success sequence	Followed success sequence
At least 90% of peers smoke	-0.18 (0.24)	0.03 (0.15)
At least 90% of peers use illegal drugs	-0.52 (0.23)	-
Census region: North Central	-	-0.18 (0.10)
Census region: Northeast	0.38 (0.15)	-
Census region: West	-	0.20 (0.11)
Percent of peers use illegal drugs: Missing	-0.47 (0.38)	-
Percent of peers who do volunteer work: Missing	-	-0.11 (0.36)
Percent of peers who go to church regularly: Missing	-0.58 (0.38)	-
Percent of peers who plan to go to college: Missing	-0.27 (0.56)	-0.29 (0.37)
Percent of peers who smoke: Missing	-0.46 (0.56)	-
Physical environment risk index	-	-0.00 (0.00)
School district size: At least 10,000	-	-0.21 (0.10)
School district size: Missing	-0.18 (0.13)	-
Youth reside in an MSA: Missing	-	-0.32 (0.39)
Factor category: Cognitive ability measured at adolescence		
Attended public primary school: Missing	-	0.23 (0.10)
Ever repeated a grade	-	-0.02 (0.12)
House or apartment broken into before age 12	-	0.13 (0.11)
Index of family routines	-	-0.01 (0.01)
Respondent changed schools from ages 5–12	-	0.38 (0.23)
Respondent has a learning disability	-	0.14 (0.25)
Respondent has a mental or emotional limiting condition	-0.74 (0.35)	0.83 (0.28)
Respondent has any limiting condition	-	-0.32 (0.23)
School type: Public	-	-0.24 (0.17)
Spent 20+ hours in child care in first year of life	-	0.20 (0.10)
Spent 20+ hours in child care in first year of life: Missing	-	-0.11 (0.20)
Victim of bullying before age 12	-	-0.07 (0.10)
Victim of bullying before age 12: Missing	-	0.03 (0.28)
Factor category: Cognitive ability measured at adolescence		
ASVAB score	-	-0.01 (0.00)
Didn't take ACT	-0.42 (0.13)	-0.17 (0.12)
Didn't take SAT	-0.47 (0.13)	-0.46 (0.12)
Highest ACT score	-	0.21 (0.12)
Highest ACT score: Unexplained missing	-0.54 (0.27)	-0.25 (0.22)
Log of ASVAB score	0.32 (0.08)	0.37 (0.09)
SAT math score	0.06 (0.08)	0.07 (0.09)
SAT math score: Unexplained missing	-0.28 (0.46)	-
SAT verbal score	-	0.00 (0.10)
SAT verbal score: Unexplained missing	-0.16 (0.45)	-0.38 (0.16)
Factor category: Adolescent characteristics, behaviors, and relationships		
Age at first menstrual period	-	0.13 (0.04)

Coefficient	Did not follow the success sequence	Followed success sequence
Age at first time smoked a cigarette	0.08 (0.05)	-
Age at first time smoked a cigarette: Unexplained missing	-	-0.31 (0.22)
Age first date is 15 or older	-0.27 (0.12)	-0.28 (0.09)
Age first date: Explained missing	-0.49 (0.22)	-0.38 (0.22)
Behavioral/emotional problems scale, youth report	-0.06 (0.05)	-
Belief on the best method for STD prevention: Withdrawal	-	0.37 (0.18)
Believes teachers are interested in students	-0.26 (0.18)	-
Did respondent use birth control at first sex	-	-0.19 (0.11)
Did the respondent drink alcohol before age 18	0.06 (0.13)	-
Did the respondent use marijuana before age 18	0.35 (0.18)	-
Disruptions by other students get in the way of learning	0.22 (0.11)	-
Ever employed as a teen for at least 50 weeks	0.20 (0.12)	0.44 (0.09)
Ever in a fight at school	-	-0.14 (0.11)
Ever late to school without excuse	-	0.16 (0.09)
Ever seen someone shot ages 12–18	-	-0.14 (0.12)
Ever suspended from school	-	-0.13 (0.10)
Feels safe at school	0.43 (0.18)	-
Hasn't had sex by age 18	-0.22 (0.13)	-
Number days used marijuana in last 30 days	-0.02 (0.01)	-0.01 (0.01)
Number of teen jobs: 2 or more	0.17 (0.13)	-
Number of times late to school without excuse	0.02 (0.01)	-
Number of times used marijuana before or during school/work	-0.35 (0.23)	-0.19 (0.15)
Optimism scale	0.07 (0.04)	-
Percent chance has a college degree by 30 years old, youth report	-	0.00 (0.00)
Percent chance youth get someone pregnant by next year, youth report	-	0.01 (0.00)
Percent chance youth is in school next year, parent report	-	0.00 (0.00)
Respondent has not used marijuana in the last month	-	0.13 (0.11)
Self-reported general health at age 18: Excellent	0.18 (0.11)	0.09 (0.10)
Self-reported general health at age 18: Very good or better	-	0.13 (0.10)
Summary of grades received in high school	0.11 (0.05)	0.03 (0.04)
Summary of grades received in middle school	-	0.06 (0.03)
There is a lot of cheating at school	0.14 (0.11)	0.21 (0.09)
Victim of bullying ages 12–18	-	-0.30 (0.13)
Respondent arrested by age 18	-	-0.09 (0.12)
Respondent charged with a burglary, theft, or robbery by age 18	-	-0.27 (0.20)

Source: National Longitudinal Survey of Youth, 1997 Cohort.

Note: Results represent the final regression of the step-wise variance decomposition. Standard errors are in parentheses. See Appendix A for a description of model specifications and covariate selection criteria.

AFDC = Aid to Families with Dependent Children; ASVAB = Armed Services Vocational Aptitude Battery; MSA = metropolitan statistical area; STD = sexually transmitted disease.

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