

The Success Sequence: New Research Findings

Dibble Institute Webinar

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June 8, 2022

Sponsorship

- **Funded by the Office of the Assistant Secretary for Health at the U.S. Department of Health and Human Services (HHS)**
 - The Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families managed the project.
- **OPRE Project Personnel**
 - Caryn Blitz (Project Officer) and Kathleen McCoy (Project Monitor)
- **Mathematica Staff**
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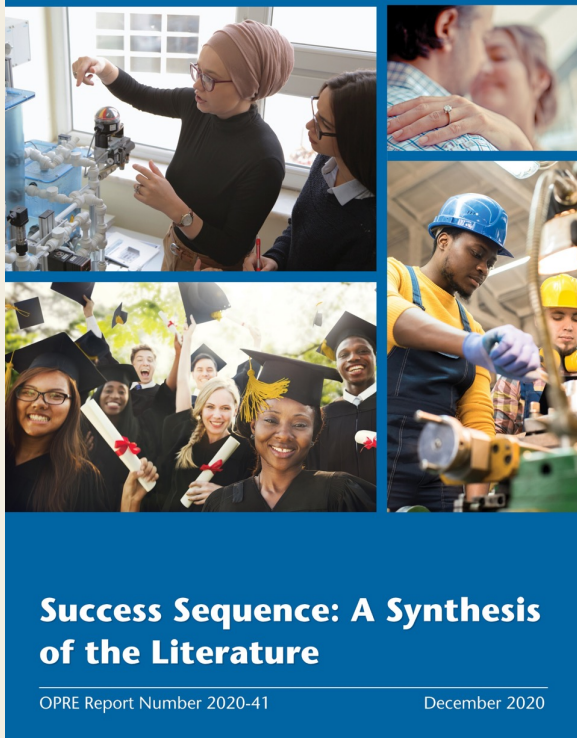
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What is the success sequence?

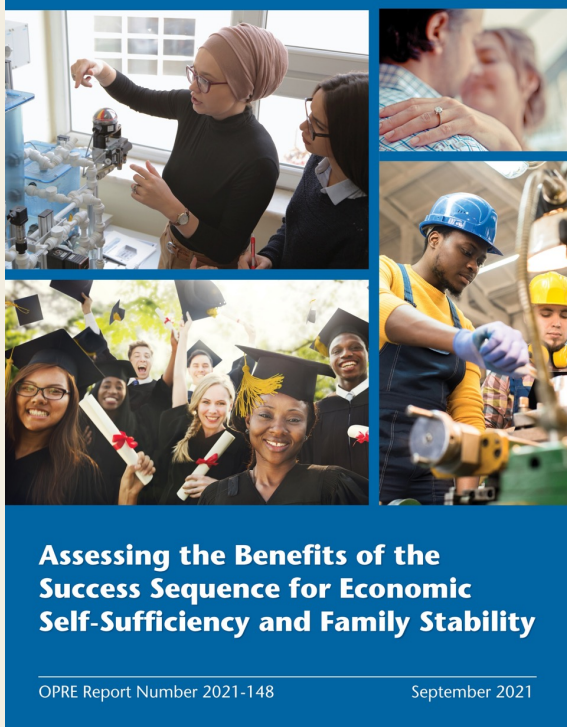
- **A theory discussed in the early 2000s that became a policy approach for reducing poverty and improving economic opportunity for adolescents and young adults (Haskins and Sawhill, 2003; 2009)**
- **A sequence of life milestones associated with escaping poverty and joining the middle class**
 - Completing high school; full time employment; waiting until marriage to have children
- **At least two federally funded programs incorporate the success sequence into educational programming for youth**
 - SRAE Program (funded by ACF/Family and Youth Services Bureau) requires grantees to teach the benefits associated with success sequencing for poverty prevention
 - Some Healthy Marriage and Relationship Education programs (funded by ACF/Office of Family Assistance) have incorporated aspects of the success sequence into their service provision models

Success sequence: Literature synthesis



- In fall 2018, the ACF contracted with Mathematica to conduct a literature review of the success sequence.
- This review identified gaps in the literature where further research is needed.
- **Gaps identified include:**
 - Limited evidence on whether the specific ordering of the milestones matters
 - Research did not test the different pathways individuals may take as they transition to adulthood
 - Much of the existing research used cross-sectional data
 - The studies did not account for the timing of education or employment in relation to marriage or childbearing.
 - Limited evidence on the range of outcomes that might be influenced by the success sequence milestones.

Success sequence: Economic analysis



- To fill the gaps identified through the literature review and expand available evidence on the success sequence, ACF also contracted with Mathematica to conduct an economic analysis
- The analysis examined the following research questions:
 - 1) By age 30, what proportion of young adults have completed high school, had a full-time job, gotten married, and had children? What are the most common sequences by which young adults complete these milestones?
 - 2) How do these sequences vary according to gender, race/ethnicity, and family socioeconomic background?
 - 3) To what extent are these sequences associated with economic self-sufficiency and family stability at ages 33-44?

Working definitions

- **Milestones (measured at the age of 30)**
 - *High school completion*: Date of obtaining a high school diploma (excluding GED)
 - *Full-time employment*: Start date of first job that leads to working at least 35 hours per week for at least 40 weeks in any given 52-week period
 - *Marriage*: Date of first marriage
 - *Childbearing*: Birth date of first biological child
- **Economic self-sufficiency (measured at ages 33-44)**
 - *Economic self sufficiency*: Non-poverty status; Middle-class status, and Household income
 - *Family stability*: Number of residential partner transitions; Presence of at least two adults in the household; and Relationship satisfaction

Data and methods

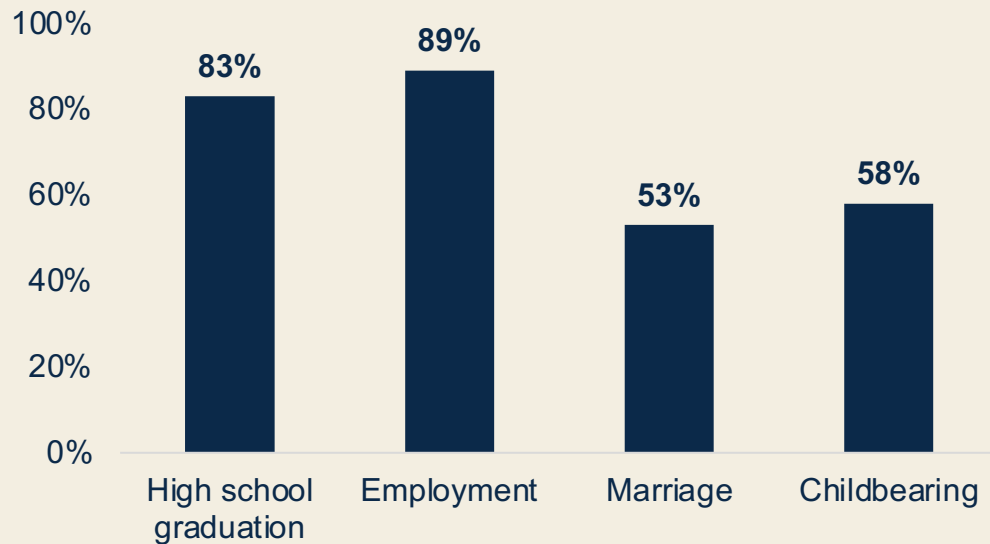
- **Use longitudinal survey data from two sources**
 - National Longitudinal Survey of Youth, 1997 cohort (NLSY-97)
 - Sample includes 7,049 respondents, born between 1980-1984, followed through their early 30s
 - National Longitudinal Study of Adolescent to Adult Health (Add Health)
 - Sample includes 9,311 respondents, born between 1980-1984, followed through their late 40s
- **Identify which milestones were completed by age 30, and when**
- **Calculate percentage of respondents who completed each milestone individually; in combination, with and without accounting for the sequence of completion**
- **Using regression analysis, estimate the association between completion of milestones (individually and in combination) by age 30 and economic self-sufficiency and family stability at ages 33-44**

Completion of milestones and common sequences by age 30



Completion of individual milestones

Figure 1. Milestone completion rates



Source: NLSY97.

Note: The milestones were measured through age 30. The sample was limited to individuals with data available through age 30.

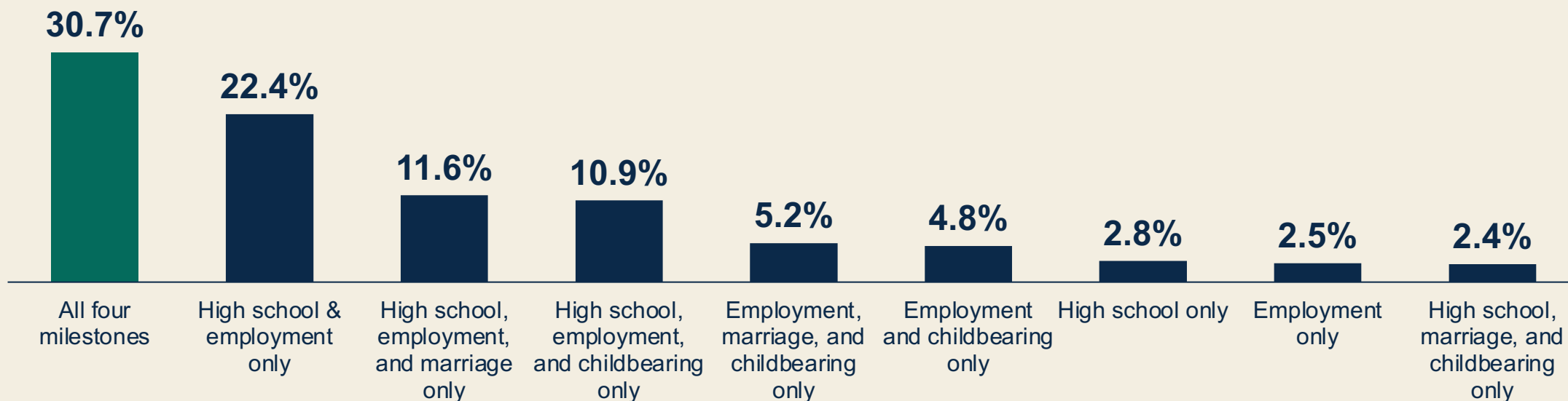
Sample size: 7,049.

- By age 30, most young adults had completed high school, and had at least one full-time job
- Around half had gotten married, and around 6 in 10 had a child
- Most of the young adults who completed high school did so around age 18
- More variation in the age of completion was observed for the other milestones

Completion of milestones in combination

- By age 30, a larger share of young adults had completed all four milestones than any other combination of milestones

Figure 2. Completion rates for combinations of milestones *without* accounting for the sequence (top 10 out of 16)



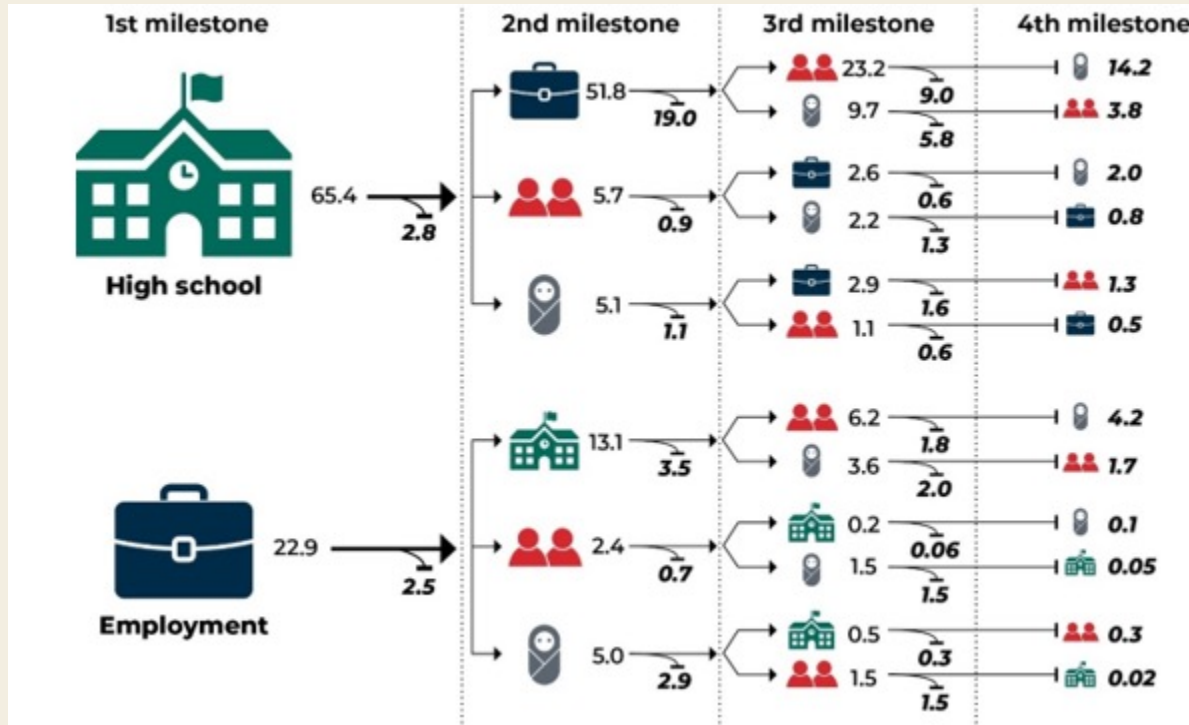
Source: NLSY97.

Note: The milestones were measured through age 30. The sample was limited to individuals with data available through age 30.

Sample size: 7,049.

Completion of sequences of milestones

Figure 2. Sequences of milestones (truncated*)



Source: NLSY97.

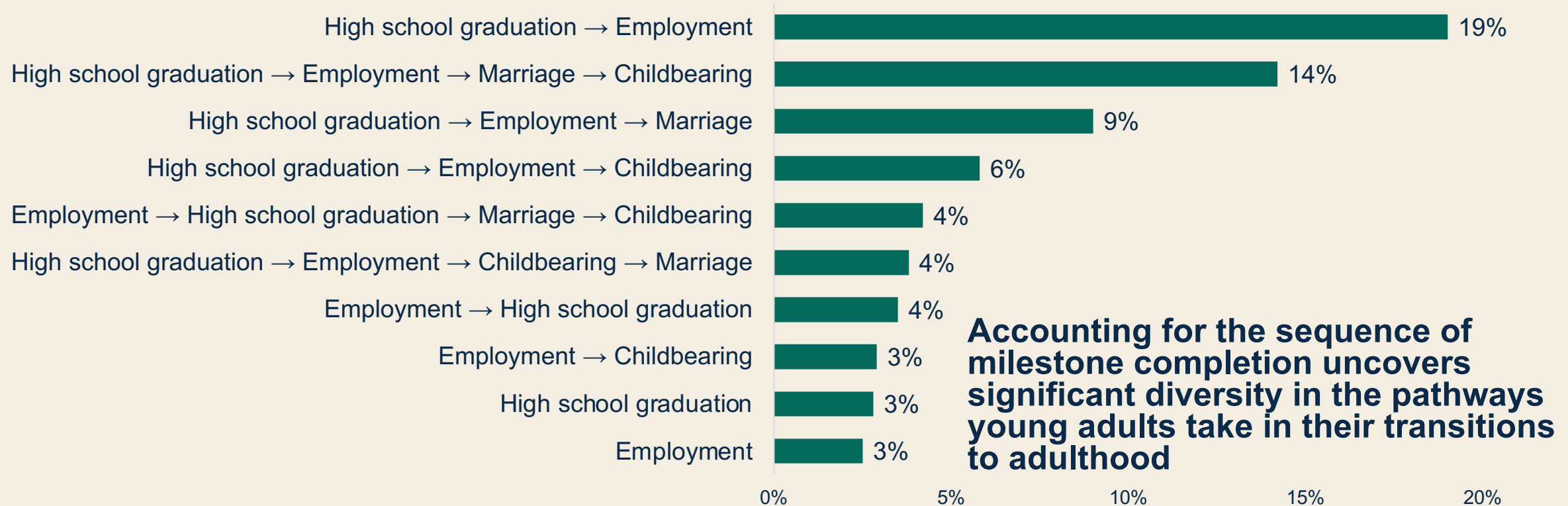
Note: The sample was limited to individuals with data available through age 30.

*: Full figure available in the report.

- Of the 65 possible sequences that account for the order of milestone completion, we found nearly all of them (64 out of 65) reflected in the NLSY97 data
- Although we found evidence of nearly all possible sequences of milestone completion, the four most common all started with high school graduation followed by employment

Completion of sequences of milestones

Figure 3. Ten most common sequences of milestones



Source: NLSY97.

Note: The sample was limited to individuals with data available through age 30.

Completion of milestones by groups



Completion of milestones by gender, race/ethnicity, and socioeconomic background

- **Completing all four milestones (not in a particular order) was the most common combination for almost all groups, however we found substantial variation across groups in the relative percentage completing all four milestones**
- **The share of those who reported having completed all four milestones by age 30:**
 - Higher for females than males (33.9 percent versus 27.7 percent)
 - Higher for Whites (34.7 percent) than for Blacks (19.4 percent) and Hispanics (28.5 percent)
 - Higher for young adults whose parents had some college education (32.8 percent) than for those whose parents did not attend college (29.0 percent)
- **These subgroup differences reflect underlying subgroup differences in the percentage of young adults who completed each milestone individually**
 - For example, the percentage of young adults who reported having gotten married by age 30 was relatively higher for females than males and relatively lower for Blacks than Whites

Associations with self-sufficiency and family stability outcomes in young adulthood



Purpose

- **Estimate how these sequences are associated with economic self-sufficiency and family stability when people are in their late 30s and early 40s**
 - How do the individual milestones of high school completion, full-time employment, marriage, and childbearing each relate to economic self-sufficiency and family stability in young adulthood?
 - How much does the completion of these milestones in combination matter relative to completion of the individual milestones? For example, how does the strength of the association between outcomes and milestones change when accounting for people who complete all four milestones versus those who complete only some?
 - How much does the ordering of the milestones matter in determining the association? For example, does the strength of the association vary depending on where employment or marriage occurs in the sequence?
- **This analysis is focused on associations, and does not estimate the causal impact of completing each sequence of milestones**

Methods

Analytical methods

- Estimate associations between milestone completion and outcomes
 - We use regression analysis to control for observable individual characteristics such as demographics, childhood experiences, and family background (see technical appendix for details)
- All outcomes are estimated at ages 33-43

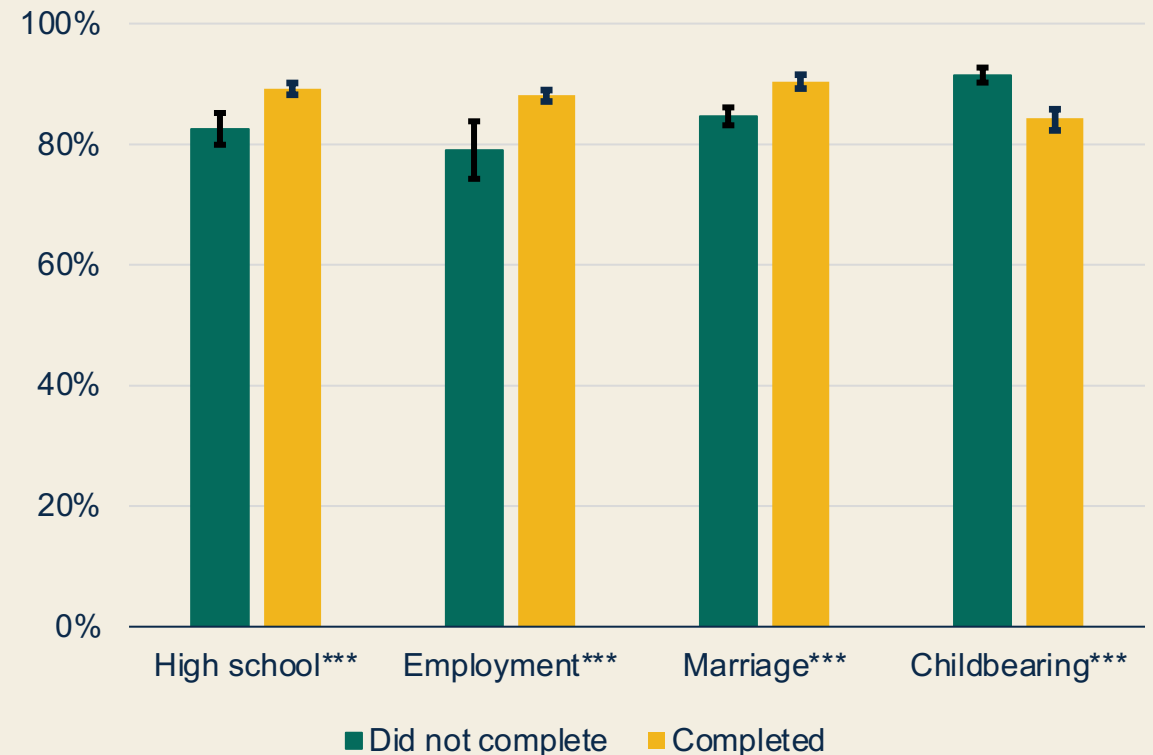
Outcomes

- Economic stability
 1. Non-poverty status (1x poverty rate)
 2. Middle-class status (3x poverty rate)
 3. Household income
- Family stability
 1. Presence of at least two adults in the household
 2. Number of residential partner transitions
 3. Relationship satisfaction

Associations of *individual milestones* with economic self-sufficiency

- High school completion, full-time employment, and marriage are all associated with better economic outcomes in young adulthood
- Having a child is associated with poorer economic outcomes in young adulthood
- These patterns hold for all three economic outcomes (poverty status, middle-class status, and household income)
- These patterns are consistent with a large body of literature on these milestones
 - Studies show that some, but not all, of these associations are likely to be causal

Figure 4. Regression-adjusted average likelihood of non-poverty status – individual milestones



Source: Add Health data.

*** Significantly significant at the .01 level.

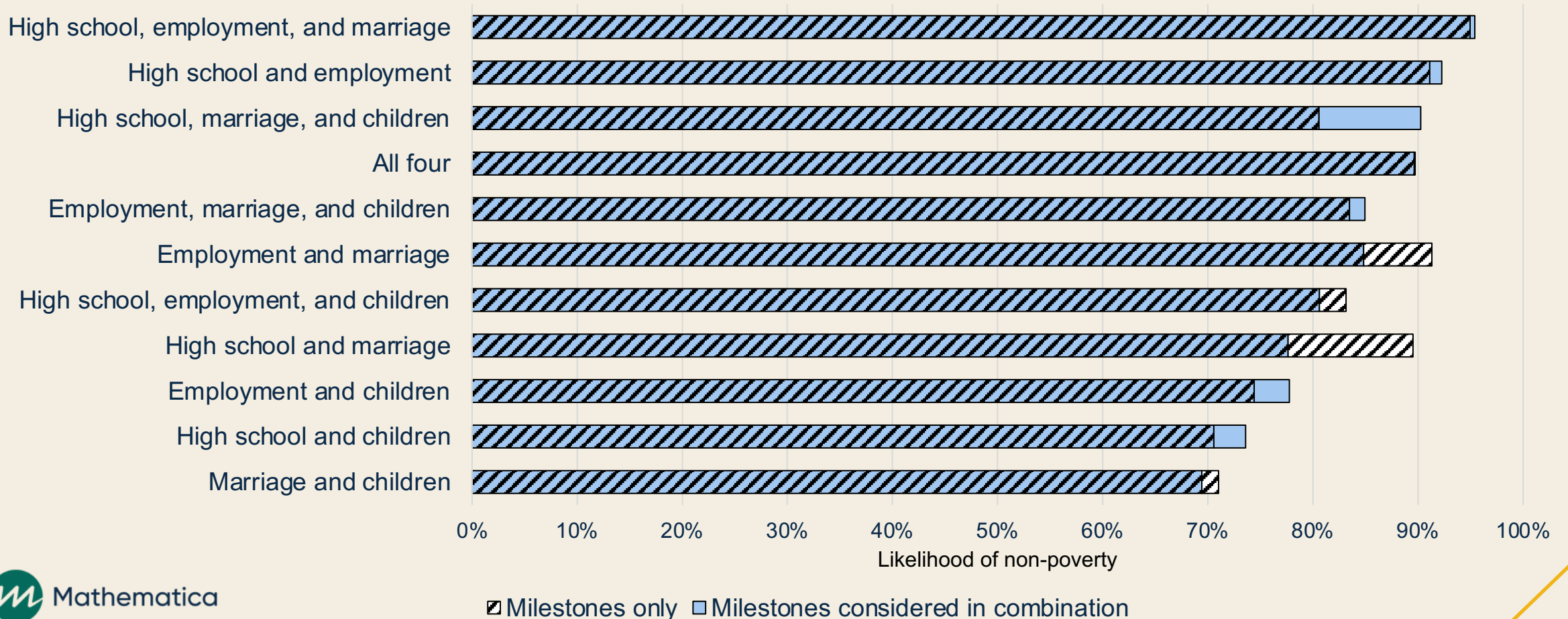
Associations of *milestones* with economic self-sufficiency: individual milestones and milestones in combination

Figure 5a. Regression-adjusted average likelihood of non-poverty status – individual milestones



Associations of *milestones in combination* with economic self-sufficiency

Figure 5b. Regression-adjusted average likelihood of non-poverty status – milestone combinations

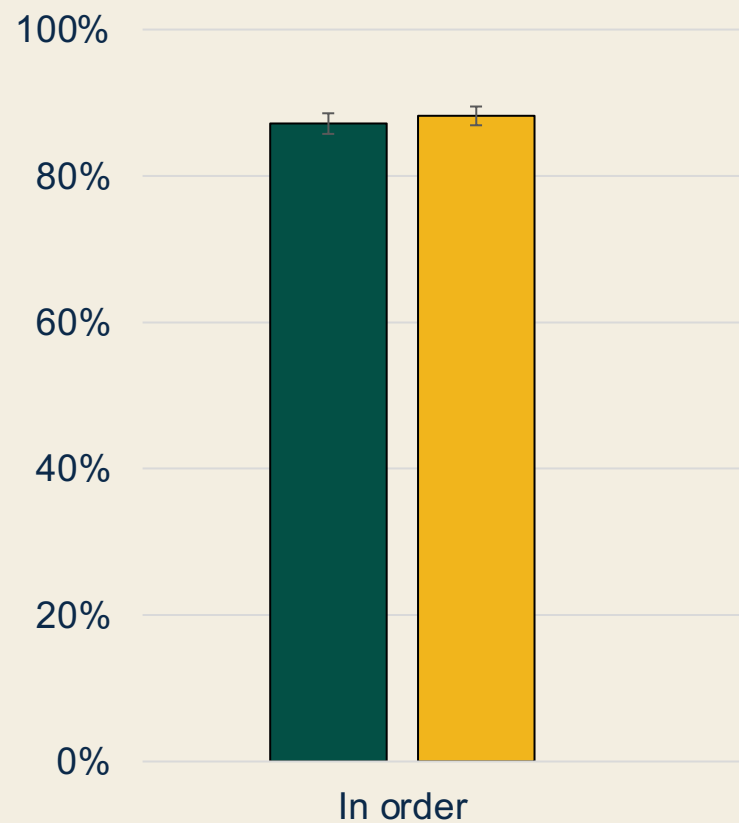


Associations of *milestones in combination* with economic self-sufficiency

- The associations found with individual milestones explain most of the variation in outcomes by combinations in milestones
- Young adults' economic outcomes vary depending on which set of milestones they complete
 - For **high school graduation, employment, and marriage**: young adults who completed more of these milestones had better economic outcomes than young adults who completed fewer milestones
 - Young adults who completed **all four milestones** are one of several groups with a **high overall chance** of avoiding poverty in adulthood
 - Young adults who completed **only one milestone** and those **who had children in combination with only one other milestone** had a **lower chance** of avoiding poverty or joining middle-class in adulthood

Associations of *sequence of milestones* with economic self-sufficiency

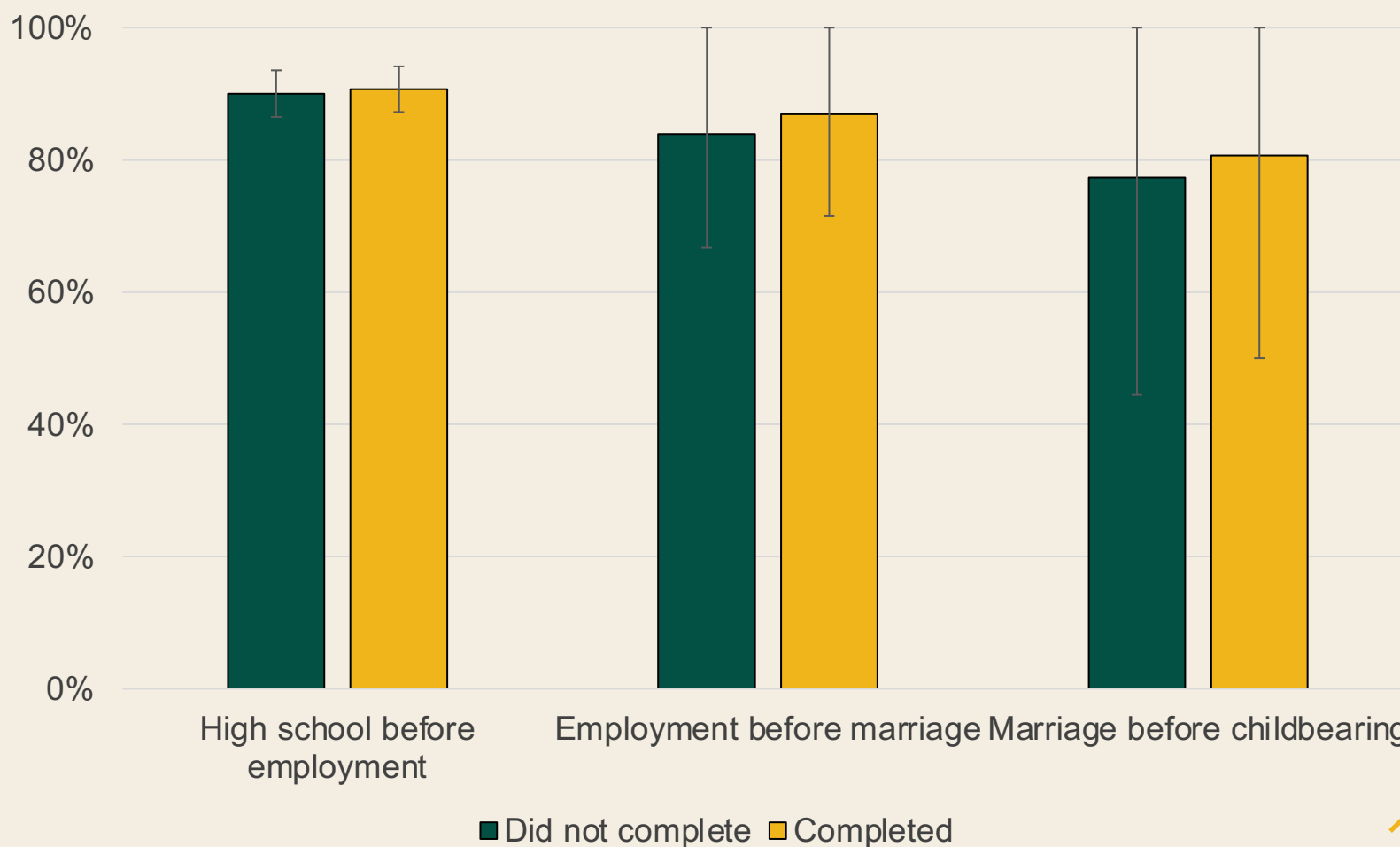
Figure 6. Regression-adjusted average likelihood of non-poverty status
(Milestone ordering for those who competed at least two milestones)



After accounting for which milestones they completed, individuals who completed the milestones in order and those who did not have similar likelihood of achieving non-poverty status

Associations of *sequence of milestones* with economic self-sufficiency

Figure 7. Regression-adjusted average likelihood of non-poverty status – milestone pair ordering



There is also no meaningful association between the order of specific milestone pairs and economic self-sufficiency

Associations of ***sequence of milestones*** with economic self-sufficiency

- **The specific sequence of milestone completion has a more modest association with young adults' economic outcomes**
 - For example, among youth who completed high school graduation, employment and marriage milestones, those who completed the milestones in order were about 1 percentage point more likely than those who completed them in a different order to have a household income above the federal poverty level, a difference which is not statistically significant
- **The ordering of high school and employment matters more than the ordering of other milestones**
 - For example, following the sequence of high school before employment was associated with a nine percentage point increase in the chances of joining middle-class

Associations with family stability

- **Overall, we found less evidence of an association between family stability outcomes and the milestones**
 - Only getting married by age 30 had a consistent association with family stability outcomes in young adulthood
 - Other milestones were associated with a small but statistically significant difference in the average number of partner transitions
 - Having a child was associated with a statistically significant decrease in the likelihood of living in a two-adult household
 - Employment was associated with a small but statistically significant increase in the likelihood of living in a two-adult household
- **We did not find evidence of an additional meaningful association between family stability outcomes and the completion of milestones in combination or in a particular order**

Main takeaways

- **Education, employment, marriage, and childbearing are all strong predictors of economic outcomes in adulthood**
 - The groups of young adults with the lowest poverty rates are those who have completed some combination of high school, employment, and marriage
 - The groups with higher poverty rates are those who have completed only a single milestone or have had children in combination with only one other milestone
- **Mixed evidence on the importance of accounting for the specific sequencing of milestones**
 - Specific sequencing of milestones is important for understanding the diversity in the pathways but has a more modest association with economic outcomes in young adulthood compared to individual milestones
- **No consistent association between family stability outcomes and milestones, with or without accounting for the sequence**

Discussion and questions



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