



Published in final edited form as:

*Youth Soc.* 2021 October 01; 53: 1090–1110. doi:10.1177/0044118x19892455.

## Socioeconomic well-being in early adulthood among repeat versus one-time teenage mothers

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### Abstract

Teenage mothers are known to be at elevated risk for poor socioeconomic outcomes in adulthood. However, little is known about the socioeconomic outcomes of mothers who bear multiple children during the teenage years (repeat teenage mothers) compared to one-time teenage mothers. This study examines socioeconomic outcomes in the mid- to late 20s of repeat teenage mothers compared to one-time teenage mothers in a national U.S. sample. Repeat teenage mothers were less likely to graduate high school and more likely to receive public assistance and experience material hardship than one-time teenage mothers in their mid- to late- 20s. Lower educational attainment plus the responsibility of caring for multiple children as a young mother may make it difficult for repeat teenage mothers to secure economic stability. Additional supports may be necessary to improve long-term socioeconomic outcomes of repeat teenage mothers.

### Keywords

Teenage motherhood; Pregnancy; Socioeconomic status/Social class

### Introduction

In 2017, 16% of the approximately 195,000 births to 15–19-year-olds in the United States were repeat teenage births (second or higher order births born to women before age 20) (Martin et al., 2018). U.S. teenage pregnancy prevention efforts have been driven by

the comparatively high pregnancy rate and slow decline of teenage childbearing in the past decades among teens in the United States in relation to other high-income countries (Romero, 2016; Sedgh, Finer, Bankole, Eilers, & Singh, 2015). One set of motivating factors for teenage pregnancy prevention efforts are the poor socioeconomic outcomes for women and their families that are associated with teenage childbearing. Prior studies have identified several dimensions on which repeat teenage mothers differ from one-time teenage mothers that may relate to poorer socioeconomic outcomes (Kaplan, Jones, Olson, & Yunzal-Butler, 2013; Klein, 2005). Repeat teenage mothers tend to be younger at their first births (Kaplan et al., 2013), which may result in earlier disruption of education, lower overall educational attainment, and subsequently worse economic outcomes. Repeat teenage mothers come from lower socioeconomic backgrounds than one-time teenage mothers (Klein, 2005), a well-documented predictor of educational achievement and future economic attainment. Previous studies also suggest that teenage childbearing (for both one-time and repeat teenage mothers) is associated with a variety of negative maternal economic and educational outcomes such as low high school and college graduation rates (Bureau of Labor Statistics, U.S. Department of Labor, 2019; Hoffman, 2006; Manlove & Lantos, 2018; National Conference of State Legislatures, 2013). For example, approximately 50% of teenage mothers graduate from high school compared with 90% of teenagers who did not give birth (National Conference of State Legislatures, 2013). Only 2% of teenage mothers complete a college degree prior to the age of 30 compared to 9% of mothers who delayed childbearing until ages 20 or 21 (Hoffman, 2006; Power to Decide, 2010) and 35% of US women overall (Bureau of Labor Statistics, 2019). The college dropout rate is 65% higher among teenage mothers compared to women who did not give birth (Manlove & Lantos, 2018; National Conference of State Legislatures, 2013). Furthermore, while the educational attainment of teenage mothers beyond high school has remained consistently lower than that of older mothers over the past 20 years in the United States, the odds of teenage mothers living in poverty have increased among recent cohorts of teenage mothers compared to older cohorts (Driscoll, 2014).

Studies using a variety of rigorous research designs suggest a causal role of teenage childbearing in shorter-term socioeconomic outcomes for mothers. Several studies using propensity score matching of girls who miscarried versus gave birth and community-level fixed effects to adjust for non-random distribution of miscarriage still found a reduction of 10–50% in high school graduation rates among those who delivered versus those who miscarried (Ashcraft, Fernández-Val, & Lang, 2013; Fletcher & Wolfe, 2009; Lee, 2010; Levine & Painter, 2003). A matched-pair study comparing teenage mothers to non-teenage mothers who were similar with regards to their educational attainment and receipt of public assistance found that teenage childbearing was associated with adverse early socioeconomic outcomes, such as lower high school and college graduation rates, lower wages, and increased likelihood of receipt of public assistance (Lee, 2010). Fletcher and Wolfe (2009) observed a significant reduction in annual wages and income of \$2,200-\$2,800 for adults who gave birth as teens compared to those who experienced miscarriages during their teenage years. Worse economic outcomes for teenage mothers have been demonstrated to last for at least 10 years, suggesting that teens who give birth will experience income disparities into adulthood (Gibb, Fergusson, Horwood, & Boden, 2015). The early adulthood

economic outcomes of teenage mothers are important to understand, as economic challenges during this key period of the lifespan for economic advancement can lead to widening inequality in teenage mothers' long-term economic stability and their ability to subsequently provide for their children.

Although the socioeconomic outcomes of the overall teenage mother population are well documented, few studies have examined whether and how socioeconomic outcomes of teenage mothers vary by parity (e.g. one-time versus repeat teenage mothers). The most current and rigorously designed studies examining consequences of teenage motherhood do not disaggregate the outcomes of repeat teenage mothers from those of one-time teenage mothers (e.g. Fletcher & Wolfe, 2009; Leve, Kerr, & Harold, 2013; Liu, Vigod, Farrugia, Urquia, & Ray, 2018). There is reason to expect that repeat teenage mothers would fare worse socioeconomically than one-time teenage mothers. Bearing and caring for two children prior to the 20<sup>th</sup> birthday presents significantly more challenges to completing one's own education and developing one's career and earning potential than bearing and caring for one child, with regards to time and expense (Grogger & Bronars, 1993; Hotz, McElroy, & Sanders, 2005; Klerman, 2004). Repeat teenage mothers are also at increased risk of failure to return to school, failure to complete a high school education, and inability to be economically self-sufficient for nearly 20 years post-partum as compared to teens that experienced a single live birth but lacked specific indicators of economic stability (Furstenberg, Brooks-Gunn, & Morgan, 1987; Klerman, Sung, & Jekel, 1991). The current study investigates how long-term socioeconomic outcomes of repeat teenage mothers differ from those of one-time teenage mothers with regards to one educational outcome: high school graduation and three economic outcomes: receipt of public assistance, personal income, and material hardship.

### **High School Graduation**

The few studies examining educational attainment among repeat versus one-time teenage mothers show worse outcomes for repeat teenage mothers. Repeat teenage mothers are more likely than one-time teenage mothers to drop out of high school and fail to complete higher levels of education (Klerman, 2004; Polit & Kahn, 1986). While studies suggest that teenage mothers may only delay and not abandon education and, thus, may avoid long-term, negative educational outcomes (Furstenberg, Jr., 2009), research is limited in timeframe and scope and has not examined the differences in long-term educational outcomes between one-time and repeat teenage mothers. Because very few teenage mothers graduate college, less than 2% by some estimates (National Conference of State Legislatures, 2013), we limited our examination of educational achievement in the current study to high school graduation.

### **Public Assistance**

One reason for public concern about teenage childbearing has been that teenage mothers may become reliant on public assistance rather than economically self-sufficient. Enrollment in public assistance or welfare programs can provide needed resources and/or subsidies to those most in need, including teenage mothers and their children. However, public assistance benefits can fluctuate based on governmental influences (e.g. political climate, resource allocation, and available funding) and vary by state. Further, program participation may

indirectly and inadvertently discourage savings and wealth accumulation by removing or limiting benefits based on the value of accumulated assets (McKernan, Ratcliffe, Steuerle, & Zhang, 2013). Thus, reliance on public assistance may inadvertently place an already at-risk population in a more precarious position in terms of financial stability.

Young mothers are more likely than older mothers to rely on public assistance programs from adolescence through at least their early 30s (Assini-Meytin & Green, 2015; Hudgins, Erickson, & Walker, 2014). According to the National Conference of State Legislatures (2018), public assistance programs support 63% of teenage mothers before their child is one year old, and of mothers receiving assistance, more than half gave birth during their teenage years.

## Income

A primary component of economic stability is earned income. Earned income, for the purposes of this study, refers to pre-tax earnings from wages, salaries, including tips, bonuses, and overtime pay, and any earnings from self-employment. The ability to procure items and access to needed resources is often dependent on level of income, thus leading to increased economic stability from higher levels of personal income (Dyk, 2004). Additionally, higher income levels are suggested to contribute to increased ability to save for economic emergencies (Collins & Gjertson, 2013), positive perception of financial circumstances (Malone, Stewart, Wilson, & Korsching, 2010), and increased overall life satisfaction (Diener, Ng, Harter, & Arora, 2010; Lawless & Lucas, 2011).

Women in the U.S. who begin birthing children during their teenage years are likely to experience lower income levels into their 20s compared to teens who experienced a pregnancy but did not give birth (Fletcher & Wolfe, 2009), and incomes may be as much as 30% lower at ages 30–42 years compared with women of the same generation who have not had children (Tubef & Bell-Aldeghi, 2017). Previous research suggests that this income disparity in adulthood is due to a combination of both social selection and social influence factors (Jaffee, Caspi, Moffitt, Belsky, & Silva, 2001). Specifically, it is understood that younger mothers often originate from lower income backgrounds (social selection factors) (Elfenbein & Felice, 2003; Penman-Aguilar, Carter, Snead, & Kourtis, 2013), and caring for a child (or children) during the teenage years may stunt women's ability to attain higher levels of education and consequently, higher levels of income in their adult years (social influence factors) (Kane, Morgan, Harris, & Guilkey, 2013). Accordingly, delaying childbearing has been suggested to contribute to a potential wage increase of 3% per every year a first birth is delayed (Miller, 2011). Further, teens who begin childbearing earlier in adolescence (e.g., prior to age 18) have lower overall household incomes and are more likely to fall below the Federal Poverty Line compared with teens who begin childbearing after high school graduation (e.g., ages 18–19) (Schulkind & Sandler, 2019). One reason for this wage discrepancy between teenage mothers who begin childbearing earlier and later in adolescence is the fact that teens who begin childbearing earlier in adolescence often have a higher number of total children by the end of their teenage years and in early adulthood (Ashcraft et al., 2013; Schulkind & Sandler, 2019). As such, repeat teenage mothers are less likely to obtain a level of employment that allows them to earn adequate income to provide

for basic needs, including food and housing for both themselves and their child(ren) or to offset the costs (childcare, transportation) of working (Furstenberg, 1976; Klerman, 2004).

### Material Hardship

Although income is an important measure of financial stability, income alone does not indicate whether an individual experiences material hardship (Beverly, 2001). Nelson (2011) defined material hardship as a comparison of what goods or services the general public considers necessary for reasonable living (e.g. adequate food, utilities, shelter) and the amount of consumption of those goods or services. Teenage mothers often struggle to maintain sufficient living conditions to rear a child. Thus, teenage mothers often rely on family members or others to assist with providing necessities such as housing, clothing, and food (Graham & McDermott, 2005). Studies of teenage mothers indicate that teenage mothers are more likely to have to apply for emergency aid or depend on family members to maintain utilities or provide other structural support in the form of residence despite their own or other household income from a fiancé or spouse (Higginson, 1998; Letourneau, Stewart, & Barnfather, 2004; Schrag & Schmidt-Tieszen, 2014). In a longitudinal study of single mothers aged 18–54 years, single mothers with more children in the household were more likely to experience food, utility, and housing hardships (Heflin & Butler, 2013). Given previous research on teenage mothers as well as the challenges of mothers in providing basic needs as the number of children increases, we expect that repeat teenage mothers are more likely to experience material hardship than one-time teenage mothers.

### Current Study

We examine whether four indicators of long-term socioeconomic stability, high school graduation, receipt of public benefits, personal income, and experiences of material hardship, differ between one-time and repeat teenage mothers at ages 24–32. Past research suggests that teenage mothers are less likely to attain a high school diploma or GED equivalent education (Ashcraft et al., 2013; Driscoll, 2014; Kane et al., 2013; National Conference of State Legislatures, 2013). We hypothesized that high school or GED attainment rates would be worse for repeat teenage mothers as a result of the increased resource demands, including time, financial, and care activities, on a teenage mother with more than one child. Previous studies also indicate that teenage mothers are more likely to rely on public assistance from adolescence into adulthood (Assini-Meytin & Green, 2015; Lee, 2010). We hypothesized that the rates of public assistance receipt would be higher for repeat teenage mothers because they have more children to support. Based on previous research showing that teenage mothers may earn as much as 30% less than their non-parous counterparts (Tubeuf & Bell-Aldeghi, 2017), we hypothesized that the combination of lower educational attainment in repeat teenage mothers and the requirements for caring for multiple children would result in even lower income levels for teenage mothers who birthed more than one child during adolescence. Studies have shown that teenage mothers are more likely to struggle with material hardship (Heflin, 2014; Heflin & Butler, 2013); thus, we hypothesized that repeat teenage mothers would experience increased levels of material hardships than one-time teenage mothers due to the increased need for sustenance, clothing, and other life necessities for additional children.

## Methods

### Data and Sample

Data are from the National Longitudinal Study of Adolescent Health (Harris et al., 2009). Add Health is an ongoing, nationally representative, longitudinal study of US participants who were aged 12–18 in 1994–1995 (Wave 1) with follow-ups occurring in 1996 (Wave 2), 2001–2002 (Wave 3), 2008 (Wave 4), and a fifth wave currently being collected in 2018–2019. The current study included female participants ( $N = 1139$ ) who were present at Waves 1 and 4 and gave birth to one or more live infants before age 20. Table 1 provides descriptive characteristics of the study sample. Repeat teenage mothers comprised 15% ( $n = 176$ ) of the overall sample and were younger at the time of first birth ( $M = 17.44$ ,  $SD = 1.47$ ) than one-time teenage mothers ( $M = 18.39$ ,  $SD = 1.24$ ). Repeat teenage mothers also reported significantly larger household size ( $M = 4.23$  household members,  $SD = 1.71$ ) than one-time teenage mothers ( $M = 3.52$ ,  $SD = 1.68$ ). One-time mothers ( $M = 28.80$ ,  $SD = 1.65$ ) and repeat teenage mothers ( $M = 28.75$ ,  $SD = 1.70$ ) shared an average age of 29 years at Wave 4. One-time and repeat teenage mothers were similarly likely to have a live-in partner (63% of one-time and 64% of repeat teenage mothers). The racial/ethnic composition of one-time and repeat teenage mothers was not significantly different.

### Measures

The current study examined four long-term socioeconomic outcomes: high school graduation, receipt of public assistance, annual personal income, and experiences of material hardship. All were measured in Wave 4.

**High school graduation.**—High school degree attainment was measured via the item: “What is your high school graduation status?”. Two response options, “finished high school with a diploma” and “earned a high school equivalency degree”, were combined to indicate completion of high school degree or GED and two response options, “earned a certificate of attendance or a certificate of completion” and “did not received a high school diploma, equivalency degree, or other certificate”, were combined to indicate no high school degree or GED.

**Receipt of public assistance.**—Receipt of public assistance indicated whether the participant had received public assistance in the last five years and was measured via the item, “Between {previous interview year} and {current interview year}, did you or others in your household receive any public assistance, welfare payments, or food stamps?” (Yes/No).

**Personal income.**—Annual personal income was measured on a continuous scale and included only the participant’s personal income, not total household or family income. Income was measured via the item, “In (interview year), how much income did you receive from personal earnings before taxes – that is, wages or salaries, including tips, bonuses, and overtime pay, and income from self-employment?”. Income values were log transformed to reduce skewness.

**Material hardship.**—Material hardship measured how many of the following scenarios the participant endorsed, ranging from 0–6: In the past 12 months, was there a time when [you or your household]: “didn’t pay the full amount of the rent or mortgage because you didn’t have enough money?”, “were evicted from your house or apartment for not paying the rent or mortgage?”, “didn’t pay the full amount of a gas, electricity, or oil bill because you didn’t have enough money?”, “had the service turned off by the gas or electric company, or the oil company wouldn’t deliver, because payments were not made?”, “were without phone service because you didn’t have enough money?”, “worried whether food would run out before you would get money to buy more?”. Previous studies have used similar measures of material hardship (Beverly, 2001; Heflin, Sandberg, & Rafail, 2009; Nelson, 2011).

Control variables: All analyses controlled for the participant’s race/ethnicity (White, Black, Hispanic, Other), participant’s age when her first child was born (age at first birth), and average educational attainment of the participant’s parents measured on a 4-point scale, 1 “less than high school”, 2 “high school graduation or GED”, 3 “some college”, 4 “college degree and higher”. Age at first birth was calculated using by subtracting the month and year of the mother’s birth from the month and year of her first child’s birth.

The model examining high school graduation additionally controlled for participant’s educational expectations at Wave 1, which were measured on a five-point scale by the item, “On a scale of 1 to 5, where 1 is low and 5 is high, how likely is it that you will go to college?” Analyses of financial hardship, personal income, and receipt of public benefits additionally controlled for whether the participant had a live-in partner at Wave 4 (yes/no). Participants were considered to have a live-in partner if they indicated that any member of their household was a “husband/wife” or “partner/boyfriend/girlfriend”. Analyses of financial hardship and receipt of public benefits controlled for total household size at Wave 4. Household size was measured via the item, “How many people live with you? Don’t count yourself” measured on a continuous scale ranging from 1 to 16 people.

## Analysis

Linear (for income and material hardship) and logistic (for high school degree completion and receipt of public benefits) regression analyses were used to assess whether repeat teenage childbearing (compared to having one child as a teenager) was associated with worse long-term socioeconomic outcomes. Analyses controlled for demographic and other factors as described above. All analyses were conducted using Mplus version 8 (Muthen & Muthen, 1997–2018). There was little missing data; only 1.45% of all observations were missing in the current sample. Full information maximum likelihood (FIML) was used to handle missing data. FIML uses all available data to estimate models and retains all cases not missing on the dependent variable, therefore reducing the bias due to missingness that may occur with listwise deletion.

## Results

Analyses revealed significant negative associations between repeat teenage childbearing and high school degree or GED certificate attainment (Table 2). Compared to one-time teenage mothers, repeat teenage mothers were significantly less likely to earn a high school diploma

or GED (OR = 0.56, 95% CI = 0.36–0.86). Higher parent education, higher educational expectations at Wave 1, and later age at first birth were all also positively associated with completing high school or GED.

Analyses also revealed significant negative associations between repeat teenage childbearing and economic outcomes. Compared to one-time teenage mothers, repeat teenage mothers were significantly more likely to have received public assistance over the past five years (OR = 1.94, 95% CI = 1.34–2.81). Higher parent education, older age at first birth, and having a live-in partner were negatively associated with odds of receiving public benefits, while Hispanic ethnicity and a larger household size were positively associated with public benefit receipt. Repeat teenage childbearing was associated with greater material hardship ( $\beta = 0.62$ , SE = 0.12,  $p < 0.001$ ). Repeat teenage childbearing was not significantly associated with personal income (Table 3).

## Discussion

There have been few studies of the long-term socioeconomic outcomes of repeat teenage mothers. Past research showing that teenage mothers (combining those with one or multiple children) have lower high school or GED attainment rates due to dropping out to care for a child, increased levels of public assistance receipt as a result of increased need to provide for both herself and her child, lower income levels and increased rates of material hardship due to underemployment, and increased demand on available resources due to family size (Boardman, Allsworth, Phipps, & Lapane, 2006; Crittenden, Boris, Rice, Taylor, & Olds, 2009; Furstenberg et al., 1987; Manlove, Mariner, & Papillo, 2000). We hypothesized that repeat teenage mothers would experience more economic instability than one-time teenage mothers as the challenges of caring for, raising, and providing for multiple children puts additional strain on what are likely already limited resources (Jæger, 2009; Sonfield, Hasstedt, Kavanaugh, & Anderson, 2013). We found that repeat teenage mothers in their mid- to late 20s experience more socioeconomic precarity, as indexed by lower educational achievement and higher likelihood of receiving of public assistance and experiencing material hardship, than women who gave birth to one child as a teenager.

We found that repeat teenage mothers were less likely than one-time teenage mothers to complete high school or a GED. High school or equivalent educational attainment (GED) strongly predicts economic outcomes and financial well-being among all demographic groups (Crissey, 2009; Hout, 2012). Results from our long-term analysis extend previous research that reports low short-term graduation rates – within 1–2 years immediately following birthing a child – among teenage mothers, by showing that graduate rates of repeat teenage mothers are lower than those of one-time teenage mothers even once they have reached their mid- to late 20s. Thus, given the impact of educational attainment on long-term socioeconomic outcomes coupled with the increased risk of low educational attainment among repeat teenage mothers, repeat teenage mothers appear poised to fare worse socioeconomically than their one-time teenage mother counterparts.

We found that repeat teenage mothers were nearly twice as likely to have received public benefits in the last five years, into their mid- to late 20s, than one-time teenage mothers.



Teenage mothers are primary consumers of public benefits; more than half of all mothers receiving public assistance birthed a child during their teenage years (National Conference of State Legislatures, 2018). Thus, as indicated by higher likelihood of public assistance receipt, repeat teenage mothers may experience economic instability for years after the birth of a second child.

We found that repeat teenage mothers did not significantly differ from one-time teenage mothers with regards to annual personal income. Our study is consistent with existing research of teenage mothers in finding that repeat teenage mothers are in a similarly precarious position as one-time teenage mothers with regards to income in early adulthood (Ashcraft et al., 2013; Furstenberg, 1976; Klerman, 2004; Polit & Kahn, 1986; Schulkind & Sandler, 2019). Repeat and one-time teenage mothers in our sample reported median annual incomes of \$12,000 and \$20,000, respectively. The low annual income in both groups may indicate that one-time and repeat teenage mothers experience similar challenges to increasing their income even up to ten years postpartum.

Despite earning similar levels of income, we found that repeat teenage mothers experienced more material hardship than one-time teenage mothers. Our results indicate that repeat teenage mothers experience significantly more difficulty maintaining basic services such as electricity, water, or gas services, and making timely and complete rent or mortgage payments, when compared to one-time teenage mothers. The greater demands of rearing multiple children compared to one child may result in a reduced ability to purchase necessary items or services (Diener et al., 2010; Dyk, 2004). Our work builds on previous research indicating that teenage mothers often struggle to independently provide staples of life such as clothing and food for both themselves and their children (Graham & McDermott, 2005). Having multiple children and/or closely spaced births is known to result in resource dilution, where parents' time, attention, and financial resources are strained, or diluted, across multiple children, especially during the early childhood years (Jæger, 2009; Sonfield et al., 2013). The majority of repeat teenage births are unintended (Boardman et al., 2006; Centers for Disease Control and Prevention, 2013; Finer & Zolna, 2016) likely due, at least in part, to the mother's understanding of the difficulty of caring for two young children as a young mother herself. The greater likelihood of material hardship among repeat versus one-time teenage mothers suggests that it is even more difficult to overcome the economic challenges of rearing multiple children birthed during adolescence.

The emotional, physical, and financial strains of supporting multiple young children can stretch parents' resources and dilute the investment they can make in their children during the key early years of their development. Much work remains to ensure teenage mothers have access to support structures to address their unique needs and improve long-term socioeconomic outcomes. Teen mothers who participate in school-based parental and child support programs are more likely to remain in school and graduate and less likely to experience a subsequent repeat teen pregnancy (Sadler et al., 2007). Family and social support are crucial to provide an environment in which a teenage mother has the opportunity to complete high school and obtain gainful employment at a level of self-sufficiency (SmithBattle, 2007). Teenage mothers who participate in programs that act as a hub to connect them to available resources (including public assistance) may benefit from an

ecological framework approach that addresses multiple aspects of teenage mothers' contexts simultaneously, such as familial, social, educational, and vocational environments and health care access and health education availability (Sangalang, 2006). Recent work shows that repeat teenage births are most common in areas of the United States where poverty is high and publicly funded family planning clinics are the most overburdened (Maslowsky, Powers, Hendrick, & Al-Hamoodah, 2019). Thus, implementing programs in low socioeconomic areas may facilitate higher educational attainment rates, decrease the need for public assistance, and decrease material hardships experienced by teenage mothers.

In addition, interventions to prevent unintended repeat births among one-time teenage mothers are particularly needed to reduce the generational cycle of economic instability and inequality. Access to affordable, effective contraception is particularly crucial (American College of Obstetrics and Gynecology, 2017). The use of contraception to prevent subsequent births during adolescence is reported to increase likelihood of favorable socioeconomic outcomes (Sangalang, 2006). Indeed, the recent decreases in rates of teenage childbearing are completely attributable to increased access to contraception (Lindberg, Santelli, & Desai, 2018).

### **Strengths, Limitations, and Future Directions for Research**

Strengths of this study include its use of a prospective, national, longitudinal sample and its examination of multiple economic outcomes into early adulthood, much longer than most prior studies. This study also had several limitations. The measure of public assistance receipt included any type of government assistance such as food stamps, welfare, Medicaid, or housing. A more detailed measure might provide more insight into the specific needs of one-time and repeat teenage mothers and if they differed on the type of assistance received as well as how the number of teenage births relates to the receipt of specific types of public assistance. Further, not everyone who qualifies for public assistance accepts it, so measuring eligibility for public assistance might be a more accurate measure as it would include income, household size, and other factors that determine need rather than receipt. Also, although our study did examine relatively long-term outcomes of teenage mothers (average age 28, approximately 10 years after the teenage mother had given birth), age 28 is still relatively early in adulthood for individuals to have achieved economic stability. Teenage mothers in particular are likely still working toward economic stability given the demands of caring for a child or children while completing one's own education or entering the workforce. Future research examining economic outcomes later in adulthood will be instructive in assessing whether teenage mothers overall and repeat mothers in particular achieve additional economic stability with greater time.

### **Conclusion**

The early adulthood socioeconomic outcomes of repeat teenage mothers are worse than those of one-time teenage mothers. By the mid- to late 20s, repeat teenage mothers have achieved lower educational outcomes compared to one-time teenage mothers and experience more precarious socioeconomic situations despite earning comparable income. Repeat teenage mothers are more likely to have received public assistance and to have experienced

material hardship despite comparable income levels to one-time teenage mothers. These long-term outcomes indicate challenging socioeconomic circumstances in this population and that additional supports may be necessary to prevent the transmission of socioeconomic instability to future generations.

## Acknowledgements:

This research was supported by grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (T32HD049302, K01HD091416, and P2CHD042849) and from the William T. Grant Foundation Scholars Program. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funders.

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**Table 1:**Descriptive Statistics ( $N = 1139$ )

	Total ( $N = 1139$ )	One-time teen mothers ( $n = 963$ )	Repeat teen mothers ( $n = 176$ )		
	<b>Proportion</b>			<b>X<sup>2</sup></b>	<b>p</b>
White	0.43	0.43	0.43	0	ns
Black	0.33	0.32	0.38	1.9	ns
Hispanic	0.17	0.18	0.14	1.47	ns
Other	0.07	0.07	0.05	0.66	ns
Live-in partner	0.63	0.63	0.64	0	ns
High school or GED completed	0.85	0.87	0.73	22.75	***
Received public assistance	0.49	0.50	0.47	26.89	***
	<b>Mean (SD)</b>			<b>t</b>	<b>p</b>
Age at Wave 4	28.79 (1.66)	28.80 (1.65)	28.75 (1.70)	0.38	ns
Age at first birth	18.25 (1.32)	18.39 (1.24)	17.44 (1.47)	9.07	***
Educational expectations	3.85 (1.27)	3.91 (1.24)	3.53 (1.39)	3.63	***
Parent education average	2.32 (0.90)	2.35 (0.90)	2.19 (0.91)	1.86	ns
Material hardship	0.99 (1.42)	0.89 (1.33)	1.75 (1.42)	-5.62	***
Log personal income	3.67 (1.48)	3.69 (1.47)	3.52 (1.49)	1.33	ns
Household size	3.62 (1.70)	3.52 (1.68)	4.23 (1.71)	-5.03	***

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

Logistic regression: educational and economic outcomes among repeat versus one-time teen mothers (N = 1139)

Table 2:

	Completed High School Degree or GED				Received Public Assistance in Past 5 Years					
	B	SE	OR	95% CI of OR	p	B	SE	OR	95% CI of OR	p
2+ Teen Births (ref: 1 teen birth)	-0.584	0.223	0.558	0.36 – 0.86	**	0.662	0.189	1.938	1.34 – 2.81	***
Parent Education	0.65	0.121	1.915	1.51 – 2.43	***	-0.199	0.076	0.82	0.71 – 0.95	**
Race (ref: White)										
Black	0.107	0.214	1.113	0.73 – 1.69	ns	0.241	0.15	1.272	0.95 – 1.71	ns
Hispanic	0.132	0.257	1.141	0.69 – 1.89	ns	-0.874	0.19	0.417	0.29 – 0.61	***
Other	-0.399	0.357	0.671	0.33 – 1.35	ns	-0.194	0.271	0.823	0.48 – 1.40	ns
Age at First Birth	0.181	0.067	1.199	1.05 – 1.37	**	-0.099	0.049	0.905	0.82 – 0.99	*
Educational Expectations	0.423	0.065	1.526	1.35 – 1.73	***	--	--	--	--	--
Household size	--	--	--	--	--	0.181	0.043	1.198	1.10 – 1.30	***
Live in partner	--	--	--	--	--	-0.746	0.141	0.474	0.36 – 0.63	***

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$



**Table 3:**Linear regression: economic outcomes among repeat versus one-time teen mothers ( $N = 1139$ )

	Material Hardship			Annual Personal Income		
	B	SE	<i>p</i>	B	SE	<i>p</i>
2+ Teen Births (ref: 1 teen birth)	0.62	0.12	***	-0.11	0.13	ns
Parent education	0.05	0.05	ns	0.14	0.06	*
Race (ref: White)						
Black	0.09	0.10	ns	0.38	0.11	***
Hispanic	-0.10	0.12	ns	0.62	0.13	***
Other	-0.23	0.18	ns	0.05	0.19	ns
Live in partner	-0.15	0.09	ns	-0.16	0.10	ns
Age at first birth	-0.02	0.03	ns	0.03	0.04	ns
Household size	0.01	0.03	ns	--	--	--

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