# Expectations and Incentives: Parental Financial Support for College During the Transition to Young Adulthood

Allyson Flaster

*University of Michigan - Ann Arbor*, aflaster@umich.edu

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## Cover Page Footnote

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By: Allyson Flaster

*This study provides new insight into enrollment disparities by examining how the financial support adolescents expect to receive from parents as they transition to young adulthood differs by parent and family characteristics and whether they attend college. I do this by estimating expectations of cash and in-kind co-residency support in the year after high school completion using data from the National Longitudinal Survey of Youth. The results indicate that children whose parents are highly educated, who have high solidarity with their parents, and whose parents hold norms of adolescent financial dependency have particularly large financial incentives to attend college—particularly a four-year college—due to the amount and type of financial support they can expect from parents. This study suggests that policymakers and practitioners who wish to reduce socioeconomic disparities in college access should look more closely at how financial aid policies interact with the actual support parents provide their children.*

One of the foundational assumptions of financial aid policy and practice is that parents are responsible for financing their children's college education. In both federal policy and research on college access and choice there is an implicit assumption that only parental income and wealth—i.e., ability to pay—determine variation in the family financial resources that children are provided. But what if parents' provision of financial support is substantially influenced by non-economic factors? For instance, family structure and parenting norms may influence the amount of support parents provide to their children, yet the discussion of these willingness to pay factors in apportioning access to college is almost non-existent in financial aid policy discussions. This is worrisome as research indicates parents' willingness to financially support their adult children varies across socio-demographic groups (Albertini & Radl, 2012; Berry, 2006).

Further, a lack of attention to parents' willingness to pay for college is problematic given that it has never been more important for stakeholders to have a full understanding of the opportunities and challenges facing young adults as they make post-secondary plans. Social and economic disparities between college graduates and those with less formal education are wide, college costs have grown dramatically, and long-standing inequalities by race and ethnicity remain firmly in place (Carnevale & Strohl, 2013; Ma, Pender, & Welch, 2016; Pew Research Center, 2014).With these trends in mind, scholars have devoted great effort to modeling the factors that influence college enrollment outcomes. However, even in analyses that account for family financial resources, academic ability and aspirations, and race/ethnicity, among other factors, they still find that the higher a student's socioeconomic status (e.g., parent education level, occupational prestige),

*Allyson Flaster is an Assistant Research Scientist at the University of Michigan – Ann Arbor.*

the more likely she is to enroll in college, particularly at a four-year institution (Hill, 2008; Kim, 2012; Ryan & Ream, 2016; Wilbur & Roscigno, 2016). Clearly, some of the mechanisms motivating adolescent's college choice behavior remain obscure.

The purpose of this study is to provide new insight into enrollment disparities by examining how the financial support children can expect to receive immediately after high school differs by parent and family characteristics. I do this by estimating adolescents' expectations of cash and in-kind co-residency support in the year after high school completion across different family configurations and parental characteristics. Because research has found parents provide more financial support to adult children who attend college than adult children who do not (Johnson, 2013; Wightman, Schoeni, & Robinson, 2012), I also simulate expectations of parental support under the scenarios in which high school graduates do and do not go to college. This provides an estimate of the additional amount of financial support children can expect from parents if they attend college; I call this extra support the "college premium" and I compare its relative size across children from different social class and family backgrounds. Finally, I discuss the implications of my findings for policy and practice in financial aid and postsecondary finance.

## Literature and Framework

As college has grown more expensive and inequality has increased, research examining student and parent perceptions of college costs and the financial aid system has become more plentiful (Jackson & Gast, 2015). Under the assumption that students and parents need accurate information to make optimal college decisions and plans, research has focused on measuring individuals' financial estimations and awareness of resources. Such research finds that parents' knowledge of tuition levels varies in ways you might expect: parents from low-income backgrounds and with less formal education are less able to estimate tuition costs than more advantaged parents, and when they do make estimates, the magnitude of their estimation errors are larger (Grodsky & Jones, 2007). Although all types of students consistently overestimate the cost of college (Bell, Rowan-Kenyon, & Perna, 2009; Nienhusser & Oshio, 2017), students from low-SES backgrounds are more inaccurate (Horn, Chen, & Chapman, 2003). Further, despite the availability of financial aid, low-SES students are more likely to view college as being unaffordable and less likely to involve parents in the financial aid information gathering process (Avery & Kane, 2004; De La Rosa, 2006). These latter findings about perceptions of affordability and parental involvement point to the need for culturally- and socially-oriented frameworks to fully explain differences in financial behaviors.

### Expectations of Parental Support

Despite the availability of studies on college cost and financial aid perceptions, little is known specifically about adolescents' expectations of parental support after high school. This is a serious gap for several reasons. First, theories that promote a rational view of decision-making, such as human capital in economics and rational action in sociology, emphasize the critical role that evaluating future conditions plays in the decision to continue education (Breen and Goldthorpe, 1997; Toutkoushian & Paulsen, 2016). Rigorous studies on the college choice process suggest high school students who are making decisions about what to do after graduation hold explicit or implicit expectations of financial support, and these expectations, in turn, affect the educational decisions they make (Arcidiacono, Hotz, & Kang; 2012; Christie & Munro, 2003; DesJardins, Ahlburg, & McCall, 2006; Fuller, Manski, & Wise, 1982; McDonough, 1997; Perna, 2008). Due to communication between children and parents about financial matters during the college choice process (Calderone, 2015; Hossler, Schmidt, & Vesper, 1999; McDonough, 1997), youths' expectations of parental financial support are likely some of the most certain of all the projections they must make about life after high school. While some studies measure whether parents plan to pay for college (Hillman, Gast, & George-Jackson, 2015), the actual expectations that students–the main actor in the college-going process–hold for their parents' support are largely an unknown quantity.

Second, the year after high school completion is a critical period in which young adults often take actions that determine the trajectory of their life course. Parents can help support their children during this transitional year by providing cash gifts (i.e., transfers) and by offering room and board in their home (i.e., co-residency). Young adults often possess little of their own financial resources, therefore the amount of transfer and co-residency support parents provide can have a huge impact on their ability to take advantage of human capital development opportunities. These two types of support are not interchangeable, however. Unlike cash transfers, which are fungible, co-residency must be used to support human capital development that occurs within commuting distance. As such, high school students who primarily expect their parents to provide co-residential support after they graduate experience college enrollment constraints that peers who expect transfers do not. Given this, it's critical to understand the prominence of cash and co-residency in parents' provision of support to young adults.

In addition to examining the amount and type of support that children expect their parents to provide in the year after high school completion, it is also important to consider the degree to which parental support is conditional. If parents help children financially only if they attend college, then the direct costs of college attendance are lowered while leaving the cost/benefit calculation of other post-high school options such as entering the workforce or military unchanged. Thus, children's expectations of conditional parental support may induce them to enroll in college.

**Parental Support of Young Adults**

Education scholars have yet to propose a holistic conceptual model that explains how parents decide to pay for college. However, as far as the federal government and colleges are concerned, economic factors are the major criteria by which children's capacity to pay for college should be assessed. Policy influencers have argued for decades that high tuition paired with robust means testing—which requires assessing children's financial need with a careful accounting of parents' recent income and select assets—is the fairest method of allocating limited federal financial aid dollars (Alexander, 2002). Thus, income, wealth, family size, and parental age are reported on the Free Application for Federal Student Aid (FAFSA) and used in the Federal Methodology, which is the federal government's formula for determining a student's expected family contribution to college costs and need for financial aid.

There is a solid empirical rationale for the Federal Methodology: Income and assets are some of the strongest predictors of whether an adult child receives parental transfers (Albertini & Radl, 2012; Wightman, Schoeni, & Robinson, 2012). So is family size; each additional sibling reduces a child's odds of parental transfer receipt (Wightman, Schoeni, & Robinson, 2012). Homeownership may also be an important contributor to parental ability to support children through college, as studies strongly suggest that increases in parents' home equity improve children's college enrollment outcomes (Lovenheim, 2011; McCollum & Upton, 2018). Although White parents appear to be more likely to give funds to their children than Latinx and Black parents (Berry, 2006), this trend is likely caused by economic disparities, not cultural differences (Berry, 2006; Rosenzweig & Wolpin, 1993; Wightman, Schoeni, & Robinson, 2012).

Sociological perspectives such as social reproduction theory assert that parents' investments in children are indeed highly dependent upon access to economic capital. However, merely possessing income and wealth is not enough to ensure that parents transmit this resource to their children. Cultural capital, often defined as the embodied preferences, manners, and knowledge held by dominant groups that are valued by educational systems, encompasses the valuation of higher education (Lamont & Lareau, 1988; Perna, 2006). As people rarely buy expensive things they do not value, valuing higher education is a necessary precursor to paying for college that varies among parents from different backgrounds. Parents who are highly educated often hold higher expectations for their children's educational attainment than parents from other educational backgrounds, which manifests in the promotion of four-year and selective college experiences

(Engberg & Wolniak, 2010; McDonough, 1997). As there is strong evidence that individuals from minority backgrounds hold higher educational aspirations than White individuals, (Engberg & Wolniak, 2010; Hill, 2008; Immerwahr & Faleno, 2000), we would also expect that non-White parents would provide more support for college than White parents, all else equal. Studies indicate that parental provision of financial support is not substantially driven by children's characteristics, including the child's gender and cognitive ability (Wightman, Schoeni, & Ross, 2012).

Sociological perspectives also highlight that families play a critical role in the process of socialization, and as the leaders of the family, parents play an important role in defining what behavior is expected and appropriate within the family unit. In her study of childrearing practices, Lareau describes differences in class-based notions of what constitutes appropriate parenting, including how involved parents should be in guiding the schooling process (Lareau, 2003). Surveys also point to differences across social class in conceptions of when childhood ends and full adulthood begins (Arnett, 1997; Furstenberg, et al., 2003). These studies suggest that lower-SES parents are more likely than middle- and upper-class parents to view schooling to be primarily their children's responsibility and children as functionally self-sufficient when transitioning out of adolescence. Within some immigrant communities, filial obligations, which refer to the normed expectations for adult children to support their parents, are emphasized more than in the dominant American culture (Rumbaut, 2005). Thus, the children of immigrants may feel the need to provide cash transfers or co-reside with parents to help support the family unit.

Finally, recent work has highlighted the role of family capital, a particular type of social capital that facilitates a sense of identity and cohesion among members by prioritizing the needs of each other (Gofen, 2009). Parents who promote the importance of family inculcate children with a sense of duty and connection to one another that produces family solidarity (Gofen, 2009; Swartz, 2008). Family solidarity consists of several components: affectual solidarity (holding positive feelings about one another), associational solidarity (engaging in contact with one another), and normative solidarity (beliefs about the importance of the family as a collective) (Parrott & Bengston, 1999). Families that are marked by high degrees of affectual, associational, and normative solidarity are likely to help each other by providing in-kind and instrumental support (Parrott & Bengston, 1999; Swartz, 2008). Affectual solidarity has been measured using survey data on perceptions of relationship quality, while associational solidarity has been measured by frequency of contact (Daatland & Lowenstein, 2005; White, 1994).

Families can vary in their degree of solidarity for several reasons, one of which is family composition. Studies indicate that parents who are separated have lower relationship quality and less contact with their children than parents who are married (Dykstra, 1997). Research also indicates that children whose parents are divorced are less likely to receive parental transfers than children whose parents remain married to each other (Henretta et al., 2012; Turley & Desmond, 2011; Zvoch, 1999). Having a step-parent appears to be particularly deleterious to the incidence and amount of financial support (Henretta et al., 2012).

There are important conclusions to draw from the aforementioned literature. First, parents' provision of financial support is clearly influenced by more than just their ability to pay. Consistent empirical evidence points to parents' relationship with the child's other parent and their own educational experience as strong influences on their willingness to support their adult children. Despite this, financial aid researchers have not examined how patterns of parental support relate to the underlying assumption of a financial aid policy that parental support is driven exclusively by the ability to pay. Additionally, while substantial information about the exchange of cash transfers from parents to adult children exists in the economic literature, relatively little is known specifically about co-residency transfers and the conditional amount of support children can expect to receive from parents at the point in time when they transition into young adulthood. It is critical that researchers shine an empirical spotlight on the support children receive immediately after completing

high school because of the importance this time period holds in individuals' educational trajectories. Therefore, the following research questions guide this study:

RQ1: How does the amount and type of support that children can expect to receive after high school vary in relation to parent and family characteristics?

RQ2: To what extent can children with different parent and family characteristics expect that their parents will make financial support conditional on college attendance?

## Methodology

The data source for this study is the Department of Labor's National Longitudinal Survey of Youth 1997 [henceforth NLSY] (Bureau of Labor Statistics, 2016). The NLSY is an ongoing survey of a cohort of 8,984 American adolescents begun in 1997 (Bureau of Labor Statistics, 2005). I employ this survey data because 1) it is a nationally-representative annual survey; 2) it follows youth through their transition into adulthood; and 3) it contains information about children's family context and receipt of financial support from parents for college and non-college expenses—all variables that are critical for answering the research questions.

**Sample and Analytic Period.** In order to generate counterfactual estimates of parental support, I focus my analysis on adolescents who have the potential to enroll in college. Thus, the sample for this study is comprised of all NLSY respondents who demonstrate that they are college-qualified by earning a high school diploma or GED. I also limit the sample to graduates who earn their credentials "on-time" (before they turn 20 years old) so as not to confound the analysis of trends in parental support with potential non-traditional student status. Making inferences from the NLSY sample to the population requires that I account for its complex sampling frame by clustering the standard errors by primary sampling unit, stratifying by segment, and applying survey weights (Moore, Pedlow, Krishnamurty, & Wolter, 2000).

This study examines the amount of parental support children can expect to receive in the year after their high school completion—the year in which the vast majority of young adults enroll in college for the first time in the U.S. (Bozick & DeLuca, 2005; Goldrick-Rab & Han, 2011). The analytic period of the study occurs from 1997 to 2002, although high school completers were only retained in the sample if they graduated between 1998 and 2001. By limiting the sample to students who graduated no earlier than 1998, I can be certain that the independent variables measured in 1997 that I use to predict parental support were measured prior to the outcomes of interest. The estimation sample includes 5,107 respondents.

**Key variables.** The study's primary construct of interest is parental financial support in the year following high school graduation (the respondent's high school completion date plus 12 months). I conceptualize parental support as being comprised of two main forms. The first, cash transfers, are given for non-college and college expenses. To create an overall measure of cash transfers given for non-college purposes, I sum the values of cash gifts and allowance received from parents. I then add this amount to the gift support given by parents to their children expressly for the purpose of paying college expenses (if applicable) to create an aggregated measure of cash transfers. I use this aggregated measure in the analyses that follow.

The second main form of parental support is co-residency. In the years 1998 to 2002, the NLSY asked a series of questions about parent custody and where respondents resided each month of the year. Using this data, I construct a count of how many months respondents live with at least one parent figure during the 12 months after high school completion. Following Johnson (2013), I monetize this form of in-kind aid by multiplying the number of months of co-residency by the average monthly housing cost in the country. Specifically, I use data from the 2000 US Census on median monthly gross rent (the contract rent plus utilities) averaged across all US counties in that year. The resulting measure is an approximation of the

monetary value of co-residency support provided by parents that allows for a direct comparison with cash transfers.

Like other nationally-representative surveys, the NLSY does not directly query high school students as to the amount of parental support they think they will be given after high school and whether they anticipate continuing to live with parents as young adults. However, because the NLSY does contain detailed data on how much financial support youth receive after high school, I use actual values of financial support [Y] to generate expected values of support E[Y]. Therefore, for each child in the sample, I estimate the amounts and types of support that youth like them (i.e., those with similar covariate values) are likely to receive. The models used to generate these expectations, which are discussed in greater detail below, use the rich data in the NLSY on parents' ability and willingness to pay.

**Predictors of parental support.** Parents' willingness to pay is operationalized using several variables. First, to account for the influence of family solidarity, I measure the marital status of the respondent's biological parents in the year prior to high school completion. This categorical variable distinguishes between biological parents who remain married to each other and two types of non-married biological parents: those who are not currently married (single parents) and those who have remarried (thereby providing the respondent with at least one step-parent). Another variable captures the child's rating of parent emotional supportiveness. All respondents were asked about their custodial and non-custodial parents' supportiveness in the base year of the survey. I assign scale values to the answer choices and then average the respondents' answers across both parents. The resulting parent emotional supportiveness scale increases in increments of 0.5, has a minimum of 1 (parent(s) are not very supportive), and a maximum of 3 (parent(s) are very supportive).

Second, I account for norms about education, child rearing, and the self-sufficiency of youth with parents' degree attainment and whether parents provide an allowance at any point prior to the respondent's high school completion year. Parents' educational attainment also accounts for the form of cultural capital that is the valuing of postsecondary education (Perna, 2006). Because there is strong evidence that individuals from minority backgrounds hold higher educational aspirations and expectations than White individuals, I also include parent race/ethnicity as an explanatory variable (Engberg & Wolniak, 2010; Hill, 2008; Immerwahr & Faleno, 2000). Unfortunately, the number of Asian, Native American, and multi-racial individuals is too small to analyze each group independently. Therefore, I combine members of these groups into one category to keep them in the analysis. To account for potential notions of filial responsibility, I include an indicator of whether the adolescent's parents are immigrants. I also include controls for children's gender, academic ability and performance (high school GPA and ASVAB scores), and the number of hours worked in the labor force in the year before high school completion. In some models, I also control for the type of college respondents attend (if any) and the average cost of college in their home state.

Controlling for parents' ability to pay means including measures of parental income, assets, budget constraints, and liabilities into the analytical models. In addition to family income, whether parents hold college savings and rent or own their residence are included to account for the ability of investors and homeowners to tap into additional equity to pay for college (Lovenheim, 2011). I also include a count of the number of children under the age of 18 in the family household to account for the dilution of these resources due to budget constraints (Steelman & Powell, 1989). Continuous measures of parent's debt and age accounts for the parent's ability to spend and save according to budget constraints and position in the life cycle. With the exception of home ownership and debt, all of these factor into the federal formula for allocating financial aid.

**Missing data.** Like most large-scale longitudinal surveys, there is a substantial amount of missing data in the NLSY. As a result, only 37% of respondents (N=1,867) in the effective sample are complete cases. Therefore I employ Royston's ICE program to perform multiple imputation by chained equations. The imputation model includes all independent and dependent variables used in the subsequent analyses, and also contextual variables not included in the analyses that are significant predictors of missingness and thus can help explain the missing data mechanisms. Doing so supports the assumption that the data are missing at random (MAR) and improves the precision of estimates during the analysis stage (White, Royston, & Wood, 2011).

**Analytical strategy.** As a first step in the analysis, I use the observed amounts of financial support given to young adults in the year after high school graduation to infer individual adolescent's approximate expectations of financial support for college. In doing so, I invoke the assumption of rational expectations (Muth, 1961). Under rational expectations theory, individuals' forecasts of important economic factors (e.g., future prices and employment rates) can be inferred from the current probability distribution of those variables. In other words, "economic actors' subjective, psychological expectations of economic variables are postulated to be the mathematical conditional expectation of those variables" (Sheffrin, 1996, p.6). This means that individuals' conditional predictions of a variable will vary and deviate from the average due to uncertainty, but overall, the predictions should center around their true value (Sheffrin, 1996). Labor economists who study education have implicitly applied the Muthian definition of rational expectations by modeling individual students' expectations of future wages and financial aid as the actual average amount for individuals with a given set of characteristics (Arcidiacono, 2004; Manski & Wise, 1983; DesJardins, Ahlburg, & McCall, 2006; Kim, DesJardins, & McCall, 2009).

With the aforementioned research as precedent, I use the probability distributions of transfers and co-residency to generate children's subjective expectations of parental financial support. The predictive models used to generate the expectations are estimated for each type of financial support and take the following general form:

$$[1] \qquad E[Y]_i = \beta_0 + \beta_1 college_i + \beta_2 X_i + \beta_3 X_i college_i$$

where $E[Y]$ is the expected value of parental financial support in the year after high school for each individual $i$ ($i = 1, …, N$), college is a binary indicator of college attendance that accounts for the potential conditional nature of parental support, and $X$ is a comprehensive vector of covariates that captures parental willingness and ability to invest in children. These covariates encompass cultural norms related to education and parenting, financial capital, and children's characteristics. Through $\beta_3$, the binary indicator of college attendance [*college*] is interacted with all the covariates represented by $X$. This allows the relationship between going to college and parental support to vary with factors that are likely related to willingness and ability to pay, such as parental wealth and education. In other words, the model accounts for the possibility that some types of parents are more likely than others to make financial support conditional on college attendance. Values of $E[Y]$ are generated for all individuals in the sample, regardless of their actual post-secondary decisions. Using information on parental financial support from non-college enrollees helps mitigate sample selection bias because information on parental support is available for all youth transitioning to young adulthood, not just those who go on to college.

Parental willingness to financially support adult children is a latent construct made manifest through actual parental support after high school. As a manifest measure, the dollar amount of financial support provided by parents observed in the NLSY is left-censored because this measure cannot fall below zero (i.e., parents with low willingness to pay cannot give their children negative transfers). Using ordinary-least-squares (OLS) with a censored dependent variable may produce inconsistent estimates (Long, 1997), therefore I employ a hurdle model. This hurdle model estimates the decision to support children as a separate function from the decision of how much support to give (McDowell, 2003). After estimating the

hurdle models, I generate three predicted values for both types of financial support. First, I generate predictive margins of parental support while holding covariates at specific values. The predictive margins illustrate how much cash support adolescents with specific characteristics can expect to receive from parents after high school, as well as the relationship between parental support and specific ability to pay and willingness to pay factors.

The next two predicted values I generate are the result of simulating how much financial support each adolescent would receive under the scenario in which she does not go to college ($E[Y]_{not}$) and under the scenario in which she does go to college ($E[Y]_{enroll}$). I do this by inserting *college*=0 and then *college*=1 into Equation 1 while holding all other covariates at their observed values. Doing so allows me to examine another important parameter, $E[Y]_{diff}$, which is the difference between the expected value of support if an adolescent goes to college and the expected value if she does not [$E[Y]_{diff} = E[Y]_{enroll} - E[Y]_{not}$]. This difference provides evidence of the financial incentives that parents provide for children to attend college.

## Limitations

This study has several limitations. First, the NLSY data on parental transfers are self-reported by children, and there are no corresponding administrative microdata by which to compare these values for evidence of error. One potential source of measurement error could occur because children have different perceptions of what constitutes a transfer than the survey designers. For instance, parents may write their children checks to use towards paying tuition, but the children may see these gifts as essentially an expense paid on their behalf and therefore do not include it in the self-report of transfers received towards college expenses. Second, it bears repeating that this study's parental financial support measures are estimated, rather than observed, and this entails making certain assumptions. In order to make accurate inferences about adolescents' expectations of financial support, the distribution of actual financial support provided by parents in the year after high school completion must generally reflect the distribution of children's expectations of support during their senior year of high school. There is evidence that some high school students and their parents do not agree as to whether parents will help pay for college, but it is unknown how well children's general expectations of cash transfers and co-residency correlate with the actual support parents provide once children become young adults (Flaster, 2018). Scholars' ability to model exactly how youth decide to go to college, enter the labor market, or join the military would be greatly improved if large-scale national surveys administered by agencies such as the Bureau of Labor and Department of Education collected data on expectations of parental support. Until that occurs, this study provides an informative estimate of these expectations.

It is also worth mentioning that while the NLSY is ongoing, it is becoming dated as a source of information on adolescence and early adulthood. The vast majority of respondents completed high school prior to 2005, and there have been important events and changes to the economy since that time. There is evidence that parents become more reticent to pay for college during economic downturns (Sallie Mae, 2014) and the Great Recession of 2007-2009 and foreclosure crisis dramatically affected Americans' wealth and financial security. It is possible that these events, as well as the Covid-19 pandemic, may have decreased parents' ability to pay for college, which would make the estimates of youth's expectations of parental support generated in this study an upper bound when making inferences to current American adolescents and parents. Although other datasets are more recent, such as the High School Longitudinal Study (HSLS), they do not contain information about the amount of financial support parents provide. The Panel Study of Income Dynamics (PSID) does contain information about parental transfers to young adults in the Transition to Adulthood supplement, but its data is not collected annually, which would make it difficult to determine the amount of support received in the year following high school completion.

# Results

I begin by presenting predictive margins of the amount of support that children are likely to receive in the year after high school according to parents' willingness to pay (Table 1). This allows me to answer RQ1. I present a model that predicts the total amount parents provide in cash transfer support (Column 1) and co-residency support (Column 2). These predictions can be seen under *E[Support]. Diff* presents differences in the predicted margins, using a base reference (ref) group as the point of comparison. Values are examined across sub-groups while holding all other covariates at their sample means, including those related to parent's ability to pay, children's characteristics, the college sector children enroll in (none, two-year, or four-year) and the average cost of attending two- and four-year colleges in children's home states. This allows me to isolate the relationship between specific characteristics and parental support, while keeping other factors from fluctuating. I also conduct Wald tests to check for differences in the predictive margins across specific values of the independent variables.

Table 1

*Expected support provided by parents to children in the year following high school completion*

| | -1- | | | | -2- | | | |
| | CASH TRANSFERS | | | | CO-RESIDENCY | | | |
| | E[Support] | SE | Diff | p-val | E[Support] | SE | Diff | p-val. |
|---|---|---|---|---|---|---|---|---|
| **Parent Degree** | | | | | | | | |
| HS or less | 1,883 | 99 | ref | - | 5,910 | 109 | ref | - |
| BA | 2,180 | 181 | 297 | 0.137 | 5,642 | 148 | -268 | 0.109 |
| Graduate | 2,852 | 336 | 969 | 0.005 | 5,260 | 237 | -650 | 0.013 |
| **Parent Race/Ethn.** | | | | | | | | |
| White | 2,008 | 104 | ref | - | 5,720 | 104 | ref | - |
| Black | 2,112 | 173 | 104 | 0.569 | 6,051 | 175 | 331 | 0.098 |
| Latinx | 1,623 | 269 | -385 | 0.174 | 5,898 | 333 | 178 | 0.607 |
| Other | 2,500 | 275 | 492 | 0.083 | 5,639 | 234 | -81 | 0.744 |
| **Parent Immigrant** | | | | | | | | |
| No | 2,056 | 100 | ref | - | 5,700 | 97 | ref | - |
| Yes | 2,070 | 180 | 14 | 0.944 | 6,016 | 176 | 316 | 0.104 |
| **Parent Marital Status** | | | | | | | | |
| Married | 2,337 | 124 | ref | - | 6,087 | 110 | ref | - |
| Sep; not remarried | 1,695 | 132 | -642 | 0.000 | 5,249 | 161 | -838 | 0.000 |
| Sep; remarried | 1,812 | 145 | -525 | 0.002 | 5,274 | 158 | -813 | 0.000 |
| **Emotional Support** | | | | | | | | |
| 1.0-1.5 (low) | 1,356 | 292 | ref | - | 5,248 | 423 | ref | - |
| 2.0-2.5 | 1,935 | 116 | 579 | 0.054 | 5,759 | 133 | 511 | 0.255 |
| 3.0 (high) | 2,171 | 114 | 815 | 0.009 | 5,789 | 98 | 541 | 0.212 |
| **Gave Allowance** | | | | | | | | |
| No | 1,746 | 114 | ref | - | 5,714 | 134 | ref | - |
| Yes | 2,263 | 114 | 517 | 0.000 | 5,790 | 101 | 76 | 0.612 |

*Notes. E[Support]= expected values of parental support when all other characteristics are held at sample means. Ref=Reference group for calculation of significant differences in expected values of support. All amounts are in current dollars.*

The results in Column 1 of Table 1 suggest that when holding all covariates at their sample means, parents with graduate degrees provide almost $1,000 more in cash transfers than parents with a bachelor's

degree or less. The children of parents who are married to the other biological parent, who have high levels of emotional supportiveness, and who provided an allowance prior to high school completion can expect to receive approximately $500-$800 more in cash transfer support than children whose biological parents are separated, who have low emotional supportiveness, and who did not provide an allowance. Parent's race/ethnicity and immigrant status are unrelated to the amount of cash transfers children can expect.

The amount of co-residency support children are likely to receive at specific values of the willingness to pay factors is presented in Column 2. As a reminder, I monetize co-residency in this study by multiplying the number of months children reside with parents after completing high school by the average monthly housing cost in the country. The marital status of biological parents emerges as the strongest predictor of co-residency support, with married biological parents providing approximately $800 more in such support than non-married biological parents in the year after high school completion. The results also suggest that parents who have a high school diploma or less provide more co-residency support than parents who have a graduate degree. All other willingness to pay factors, including parent race/ethnicity and emotional supportiveness, are unrelated to the provision of co-residency support.

**Simulation.** The next step in the analysis is to conduct a simulation that models how the expected value of financial support from parents changes if their children do or do not go to college. These simulations hold all covariates at their observed values but vary whether *college*=0 or *college*=1. This allows me to answer RQ2. Table 2 has the following structure: Column 1 presents the amount of cash transfer support children with the designated covariate value can expect to receive if they do enroll in college ($E[Y]_{enroll}$), Column 2 is the amount they can expect if they do not enroll in college ($E[Y]_{not}$), Column 3 presents the difference in the two expected values (i.e., the *college premium*: $E[Y]_{enroll} - E[Y]_{not}$), and Column 4 lists the difference in the college premium from the reference sub-group. Column 4 also reports the results of a nonlinear Wald test of the difference in college premiums with significance levels.

The simulation results in Table 2 suggest striking disparities across parents' education level. A Wald test (not shown) indicates that there is no significant difference across parent education levels in the amount of support that children receive if they *do not* attend college; on average, non-enrollees can expect to receive approximately $430-$500 in cash transfers in the year after high school. However, if children *do* enroll in college, then children whose parents have a graduate degree can expect to receive almost $6,000 more than children whose parents have a high school diploma or less. The simulations also suggest that a child whose biological parents are married to each other can expect to receive more cash transfer support than a child whose parents are separated, both if he enrolls in college and if he doesn't. In particular, among children who enroll in college, children who have step-parents are provided with approximately $2,350 less than children whose biological parents are married, leading to a $2,200 difference in their college premiums. Likewise, children who rate their parents low in emotional supportiveness can expect to receive college premiums that are approximately $3,700 smaller than children who rate their parents high in emotional supportiveness. Parents who pay their children an allowance during high school provide more support to their children in the year after high school than parents who do not pay an allowance, both for college enrollees and non-enrollees. They also provide a college premium that is almost $1,600 larger.

Table 2

*Simulations of expected cash transfers under the scenarios that children do and do not go to college*

| Covariate | - 1 -<br>College<br>Yes | - 2 -<br>College<br>No | - 3 -<br>College<br>Premium | - 4 -<br>Difference in College<br>Premium | |
|---|---|---|---|---|---|
| | | | | Diff | p-val |
| **Parent Degree** | | | | | |
| HS or less | 5,550 | 429 | 5,122 | ref | - |
| BA | 7,332 | 430 | 6,903 | 1,781 | 0.008 |
| Grad | 11,492 | 496 | 10,995 | 5,874 | 0.000 |
| **Parent Race/Ethn** | | | | | |
| White | 7,428 | 399 | 7,029 | ref | - |
| Black | 7,545 | 555 | 6,990 | -39 | 0.961 |
| Latinx | 6,493 | 288 | 6,205 | -825 | 0.529 |
| Other | 8,451 | 559 | 7,892 | 863 | 0.406 |
| **Parent Immigrant** | | | | | |
| No | 7,509 | 432 | 7,077 | ref | - |
| Yes | 7,614 | 436 | 7,178 | 101 | 0.892 |
| **Parent Marital Status** | | | | | |
| Married | 8,136 | 511 | 7,625 | ref | - |
| Sep; not remarried | 6,277 | 368 | 5,909 | -1,716 | 0.011 |
| Sep; remarried | 5,782 | 401 | 5,381 | -2,244 | 0.001 |
| **Emotional Support** | | | | | |
| 1.0-1.5 (low) | 4,190 | 360 | 3,830 | ref | - |
| 2.0-2.5 | 6,633 | 442 | 6,191 | 2,361 | 0.048 |
| 3.0 (high) | 8,029 | 431 | 7,598 | 3,768 | 0.002 |
| **Gave Allowance** | | | | | |
| No | 6,405 | 358 | 6,047 | ref | -- |
| Yes | 8,119 | 478 | 7,641 | 1,594 | 0.001 |

*Notes. College Yes=Expected values of parental support when child attends college and all other characteristics are held at observed values. College No= Expected values of parental support when child does not attend college and all other characteristics are held at observed values. College Premium=Difference between Column 1 and Column 2. Ref=Reference group for calculation of significant differences in expected values of support. All amounts are in current dollars.*

Table 3 presents the co-residency simulations, and it suggests that parents' marital status is the only factor related to the size of the co-residency college premium. Specifically, in comparison to married biological parents, separated biological parents provide substantially larger college premiums. This is due to married biological parents providing high levels of co-residency support regardless of their children's enrollment, and separated biological parents providing lower levels of co-residency to children who do not enroll in college. In fact, a Wald test (not shown) indicates that the children of married biological parents do not receive a college premium at all because the difference in their expectations of co-residency across the two enrollment states is not distinguishable from zero.

Table 3

*Simulations of expected co-residency under the scenarios that children do and do not go to college*

| Covariate | - 1 - College Yes | - 2 - College No | - 3 - College Premium | - 4 - Difference in College Premium | |
|---|---|---|---|---|---|
| | | | | Diff | p-val |
| **Parent Degree** | | | | | |
| HS or less | 6,748 | 5,559 | 1,189 | ref | - |
| BA | 7,335 | 5,192 | 2,143 | 954 | 0.068 |
| Grad | 6,152 | 5,122 | 1,030 | -159 | 0.835 |
| **Parent Race/Ethn** | | | | | |
| White | 6,708 | 5,422 | 1,286 | ref | - |
| Black | 6,601 | 6,017 | 584 | -702 | 0.116 |
| Latinx | 5,835 | 5,581 | 254 | -1,032 | 0.251 |
| Other | 6,842 | 5,002 | 1,840 | 554 | 0.255 |
| **Parent Immigrant** | | | | | |
| No | 6,564 | 5,477 | 1,087 | ref | - |
| Yes | 7,116 | 5,602 | 1,514 | 427 | 0.420 |
| **Parent Marital Status** | | | | | |
| Married | 6,964 | 6,575 | 389 | ref | - |
| Sep; not remarried | 6,050 | 4,741 | 1,309 | 920 | 0.050 |
| Sep; remarried | 6,613 | 4,798 | 1,815 | 1,426 | 0.001 |
| **Emotional Support** | | | | | |
| 1.0-1.5 (low) | 5,386 | 5,813 | -427 | ref | - |
| 2.0-2.5 | 6,846 | 5,234 | 1,612 | 2,039 | 0.045 |
| 3.0 (high) | 6,662 | 5,690 | 972 | 1,399 | 0.157 |
| **Gave Allowance** | | | | | |
| No | 6,561 | 5,524 | 1,037 | ref | - |
| Yes | 6,778 | 5,492 | 1,286 | 249 | 0.518 |

*Notes. College Yes=Expected values of parental support when child attends college and all other characteristics are held at observed values. College No= Expected values of parental support when child does not attend college and all other characteristics are held at observed values. College Premium=Difference between Column 1 and Column 2. Ref=Reference group for calculation of significant differences in expected values of support. All amounts are in current dollars.*

## **Discussion**

One of this study's major contributions is its examination of the types of parental support children can expect to receive from parents. This allows us to observe the relative importance of cash and in-kind support in parents' strategies for launching their children into young adulthood during the year in which their children are most likely to enroll in college. I find that after holding a host of factors constant, including children's college destinations and parents' ability to pay, parents with graduate degrees differ from parents with lower levels of education in their provision of cash transfers (they provide more) and co-residency (they provide less), which suggests that parents from different socioeconomic groups employ fundamentally different strategies for launching their children into young adulthood.

By performing simulations to calculate the "college premium" (the boost in parental support children receive if they attend college), I found that high school students' financial incentives for attending college differ depending on their background. Overall, children whose parents are highly educated, who have high solidarity with their parents, and whose parents hold norms of financial dependency have particularly large financial incentives to attend college due to the amount of financial support provided by their parents. In

particular, the large cash premium highly-educated parents provide for college may help explain why enrollment is now practically universal for children from high SES backgrounds. High-SES children would be foolish to pass up such a large gift from parents just to enter the workforce or military. Highly educated parents most likely provide this incentive because they know that investments in higher education help improve children's productivity in a way that enhances cultural capital and aligns with global trends in the knowledge economy. Co-residency support may save money, but it does not fulfill these productivity- and status-enhancing functions.

Regarding in-kind support, this study suggests that co-residency college premiums are modest to non-existent for most children. This leads to the conclusion that many children expect to be able to live with their parents for the majority of the year after high school, whether they go to college or not. In other words, living with parents is the norm (not the exception) among college-qualified young adults, despite the assumptions embedded in college choice models and theories, policy initiatives such as the College Scorecard, and research on college-student match that assumes adolescents are geographically mobile when making college choices (Bastedo & Flaster, 2014; Hillman, 2016). The idea that young adults should attend the college that is the most rigorous, selective, and prestigious they are admitted to, regardless of location, is a norm espoused primarily by upper-SES parents (Calderone, 2015; McDonough, 1997).

Although the children of highly educated parents are not likely to receive a co-residency college premium, the way that their parents apportion financial support serves to discourage attendance at local colleges such as community colleges. The predictive margin results indicate that parents with graduate degrees provide significantly less co-residency support than other parents, whether their children attend college or not. So perhaps these parents provide cash transfers to their children to help pay for room and board in an apartment instead? Table 2 suggests that is not necessarily the case—highly educated parents and parents with a bachelor's degree or less provide equivalently little cash transfer support if their children do not attend college, an amount that would only cover a small portion of their children's rent and utilities. If their children do enroll in college, however, highly educated parents provide substantially more cash transfer support than other parents—enough to perhaps pay for a full year of room and board with more left over for college expenses. In sum, the children of highly educated parents can expect less  co-residency support than other children in the year after high school (which means they have less of an incentive to attend a local college), but if they enroll in college, they can expect to receive much larger sums of fungible cash transfers that can be used to pay living and educational expenses at the college of their choice, wherever it may be located.

For the many low-SES children who expect to receive the majority of their parental financial support in the form of co-residency and do not live within commuting distance of a selective college, relocating to attend a more selective college such as a four-year institution would require them to give up the equivalent of thousands of dollars in guaranteed financial support from parents. Qualitative research illustrates that low-SES adolescents who do not expect to receive any parental cash transfers to help pay for college nevertheless plan to co-reside with parents once they enroll to help reduce their living expenses (Cilesiz & Drotos, 2016). This living arrangement often precludes attendance at four-year colleges since these institutions tend to be non-local to disadvantaged students (Hillman, 2016). It is not surprising, then, that adolescents from low-SES and ethnically/racially minoritized groups are over-represented at two-year colleges and under-represented at four year colleges. Co-residency support is easy to secure, local colleges allow its use, and their local college option is disproportionately likely to be a two-year college.

One major exception to the norm of parents providing plentiful and (mostly) non-conditional co-residency support, however, is the children of separated parents. Children with step-parents can expect to receive almost three more months of support if they attend college than if they do not and the children of

single parents can expect approximately two more months of support. These children experience a strong financial incentive to attend a local college.

Another contribution of the study is its explicit focus on parental willingness to pay as a predictor of inter-familial transfer support. I find that factors related to cultural capital, norms about independence, and family solidarity are related to the provision of support. Specifically, the framework's predictions regarding family solidarity and norms of independence were supported. The children with the lowest solidarity with parents can expect to receive substantially less cash in the year after high school than children with the highest solidarity. Children with separated parents also receive substantially less co-residency support than their peers. Children who received an allowance during high school, an indicator of parental norms about the financial dependence of children, receive substantially more cash support after high school. In sum, the results clearly indicate that the willingness to pay factors exert a strong influence on parents' support of their young adult children.

**Research Implications.** In most studies of college access and choice there is an implicit assumption that only parental income and wealth determine variation in the family financial resources that children can access when paying for college. This study's findings invalidate that assumption, as children from families with similar financial resources can expect substantively different amounts of parental financial support in the year after high school if other facets of their family context differ. Future research on college choice should model that parents make their income and assets more available to their children if they hold norms of young adult financial dependence and as their solidarity with family members and education level increase. There are likely other sources of variation in norms and child-parent solidarity that could impact funding for college that remain unexplored. For instance, recent anecdotal evidence suggests that LGBTQ children could be particularly likely to have parents that refuse to help them pay for college due to bias and estrangement (Kacala, 2018). As moral judgements and affective valuations about goods determine people's willingness to pay for them (Ajzen & Driver, 1992), it is also concerning that a majority of Republicans currently have a negative impression of American colleges and universities (Pew Research Center, 2017). Might parents who hold politically conservative views be less willing to help fund their children's education due to their distrust of higher education? As socio-political conditions are constantly in flux, future research should continue to explore how parent characteristics and family dynamics shape the ability of young adults to pay for college. Additionally, given the variation in expectations estimates produced in this study's simulations, future research that directly measures perceptions of college costs and financial aid should include youth's expectations of parental support.

**Policy and Practice Implications.** This study has implications for policy and practice in financial aid and postsecondary finance. One of the foundational assumptions of federal financial aid policy is that parents are responsible for financing their children's college education. Another assumption is that parents will primarily do so using cash transfers. These assumptions are enacted through regulations in the Higher Education Act that specify students' eligibility for federal financial aid. Before discussing these assumptions in greater detail, I will briefly explain the main need analysis formula used to estimate students' financial need.

There are two main components of the Federal Methodology used to allocate need-based financial aid. The Expected Family Contribution (EFC) is a measure of students' and parents' ability to pay for college and the Cost of Attendance (COA) measures students' educational expenses such as tuition, fees, and room and board. The higher a student's COA and the lower her EFC, the more financial aid she is eligible to receive. Assumptions about the dependency of young adults are embedded in the calculation of the EFC. Parental income and assets are used to calculate the EFC unless undergraduates demonstrate their independence from parents by getting married, having children, turning 24, earning a bachelor's degree, or joining the Armed Forces. This means that socially-constructed markers of adulthood are used as indicators

that the student is no longer a member of their parents' household. Thus, the EFC is based on a normative definition of independence. This study's results strongly suggest that certain types of parents are more likely than others to behave in accordance with the norms reflected by the EFC formula. Parents with graduate degrees and parents who are married to their child's other biological parent treat their children as financial dependents by providing them with cash transfers to a greater extent than other parents. In other words, federal policy most closely mirrors the norms and values of parents who are socially and economically advantaged. Children whose parents subscribe to these norms to a lesser extent, such as potential first-generation college students, are particularly disadvantaged under current policy because the need analysis formula overstates their access to cash transfers and thus understates their need for financial aid.

Another embedded assumption in the need analysis formula is that the family contribution to children's college expenses will be provided in cash. The formula does not assess a parent's ability or willingness to provide in-kind support. Room and board expenses, however, are a component of the COA, which is why students are asked in the Free Application for Federal Student Aid (FAFSA) whether they plan to live with family when enrolled. Students who report on the FAFSA that they plan to co-reside with family can have their COA lowered because colleges assume that their room and board expenses are less than students who live on campus or independently (Goldrick-Rab & Kendall, 2016). Although their parents may be providing substantial (in-kind) support, their EFC is not commensurately reduced because the EFC is expected to be provided in cash transfers. Thus, the funding strategy most commonly practiced by low-SES parents to help launch children into young adulthood (i.e., co-residency) can lower their children's eligibility for federal financial aid.

Action can be taken at the federal, state, and institutional level to make financial aid policy more effective for children whose parents are less willing to provide cash for college. First and foremost, federal need-based aid could be better targeted to low-SES students if the criteria for independence were changed in the Federal Methodology (FM).  The Congressional Methodology, which was in use in the 1980s, considered undergraduates to be independent if they were not claimed on their parents' taxes and earned at least a specific amount per year (Department of Education, 1988). The underlying assumption was that true independence occurred when students earned enough market-based wages to be self-supporting. Independence was gauged fiscally, not normatively. This assumption mirrors current Americans' sentiment that children attain full adulthood when they have the ability to support themselves and others (Furstenberg et al., 2003). Thus, changing the criteria for independence in the FM from a normative orientation to a fiscal orientation would both better align with public opinion and reduce roadblocks to need-based aid that disproportionately affect low-SES students.

Absent the political will to change the dependency criteria at the federal level, there are other actions policymakers and administrators can take to make college finance more equitable and effective. One is to provide college savings and investment accounts directly to low-income children, such as through Child Development Accounts (CDAs) or 529 plans, with starter deposits and matching funds (Goldberg, Friedman, & Boshara, 2010). Elliott and colleagues find that children's likelihood of enrolling in college is greater when they have savings in their own name (Elliott, 2009; Elliott & Beverly, 2011). Helping children acquire their own funding would likely have a disproportionately positive impact on college access for children from disadvantaged backgrounds.

Finally, institutional practices can also be modified to improve college access for students who receive no cash transfer support, such as students who lack solidarity with parents. Section 479A of the Higher Education Act stipulates that financial aid administrators can revise data elements that comprise the EFC or COA if a student's circumstances warrant "special attention" (NASFAA, 2012). Specifically, institutional financial aid staff may issue a dependency override for students who do not meet the federal criteria for independence but who are incapable of receiving support from parents. Although simple parental

unwillingness to pay for college or refusal to complete the FAFSA are not valid grounds for an override (Department of Education, 2012), parental alienation that results from abuse or abandonment and produces an unwillingness to pay is (NASFAA, 2012). There is little research on dependency overrides, but one study suggests that only 0.5% of first-year undergraduates receive them (Flaster, 2012). Financial aid administrators could increase awareness of dependency overrides by providing information and outreach to children who have an increased likelihood of being estranged from parents. Possibilities include children who reside with grandparents or other extended family members or who are members of gender identity or sexual orientation minority groups (Ochoa, 2011).

## Conclusion

I began this study by noting that if scholars and policymakers knew more about what adolescents' expectations of parental support are likely to be, they could better understand the mechanisms behind persistent college access disparities. The conclusions engendered by this study point to large disparities between what advantaged and disadvantaged children can expect in the way of financial support for college. In particular, the support-giving behavior of parents whose characteristics mirror those of many policymakers (high levels of formal education, traditional family structure) produces huge financial incentives for children to enroll in four-year colleges immediately after high school. The price of college continues to outpace wage gains for the vast majority of Americans, making it more difficult for students to self-finance their way through college with work and financial aid than in the past. Now more than ever, studying expectations of parental financial support is critical to understanding why some students are more likely to transition to college than others.

### Nexus

Future research on college choice should model that parents' make their income and assets more available to their children if they hold norms of young adult financial dependence and as their solidarity with family members and education level increase.

Federal need-based aid could be better targeted to low-SES students if the criteria for independence were modified in the Federal Methodology (FM) to incorporate fiscally-oriented criteria.

Policymakers and administrators can make college finance more equitable by providing college savings and investment accounts directly to low-income children, such as through Child Development Accounts (CDAs) or 529 plans. Helping children acquire their own funding would likely have a disproportionately positive impact on college access for children from disadvantaged backgrounds.

Institutional practices can also be modified to improve college access for students who receive no cash transfer support, such as students who lack solidarity with parents. Financial aid administrators could increase awareness of dependency overrides by providing information and outreach to children who have an increased likelihood of being estranged from parents. Possibilities include children who reside with grandparents or other extended family members or who are members of gender identity or sexual orientation minority groups.

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