Most students are aware of the need to prepare academically for college, but they may be less aware of the need to prepare financially. Among young students with few financial resources of their own, financial preparation consists mostly of learning information about the various financial aid resources available to them. For many students this is a combination of in-kind, loan, and gift support from parents, relatives, community organizations, the college they attend, their state, the federal government, and banks. Each source may have different applications, initial eligibility rules, and continuing eligibility requirements. Although students invest twelve years of schooling to prepare academically, they typically invest far less time in preparing financially.

Surveys measuring general financial literacy have found objectively low levels among young adults (Lin et al., 2016; Lusardi, Mitchell, & Curto, 2010; Mandell, 2009). However few surveys measure financial knowledge of facts that are directly related to the process of paying for college. These facts include tuition prices of colleges, the cost of living for a college student, and eligibility rules for financial aid. By far the most important determinant of eligibility for financial aid is household income (Federal Student Aid, 2017). This simple piece of information cannot be taught in financial literacy courses, because it differs for each student.

Despite the growing importance of financial aid, we know little about the state of students’ knowledge of parental income. Research studies that compare student reports to more accurate measures of parental income have focused on specific local populations in the 1990s and earlier (Kayser & Summers, 1973; Romano & Marenco, 1994; Smith & McCann, 1998). Meanwhile the price of college and the proportion of students using financial aid have grown substantially (College Board 2016; U.S. Department of Education 2011, 2014).

This study provides new information about student financial knowledge by linking a statewide student survey to administrative data on parental income.
Research brief: Do high school students know their parents' income?

Methods

Students in Illinois were a slight majority female and a large majority white. The largest minority ethnic groups were African American (11.8%), Latino (7.7%), and Asian American (5.0%), with 9.1% of students speaking a language other than English at home. Seven in ten students had married parents. Students who had earnings during high school (62.6%), other household members in college (31.7%), or who expected to receive financial aid in college (88.5%) might be more informed on financial matters.

Four in ten students did not have a parent who had earned any college degree, but the vast majority of students aspired to complete a bachelor's degree. Most intended to do so at a public university. Over half aspired to complete a master's degree or higher. Thirteen percent expected to begin college at a less-than-four-year institution. Students appeared to be academically prepared for college, as the majority passed college-ready benchmark scores for the ACT math, English, and reading tests (although not for the science test). About two-thirds of students had completed a college preparatory curriculum in high school. See Table 1 for further description of the sample.

We used longitudinal data on enrollment to assess the accuracy of their predictions about college. Of this sample, 86% enrolled in college, but far more enrolled at a community college than their plans indicated (41% versus 7% planned). After four years, the average student enrolled in college for 3.2 years. Forty percent earned some certificate or degree, and 28% earned four-year degrees. Overall, the picture of these students in their junior year of high school is one of ambition to attend and succeed in college, with help from financial aid.

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1. The Illinois State Board of Education provided the ACT data, the Illinois Student Assistance Commission provided the FAFSA reports, and the National Student Clearinghouse provided the enrollment and completion data. The Illinois Student Assistance Commission combined these data to create a research database.
High School Students’ Knowledge of Their Parents’ Income

If students are accurate, then the distributions of income should be roughly similar regardless of the income measure. Figure 1 superimposes the two distributions through histograms. Clearly the ACT measure skewed more than the FAFSA measure, indicating that students overreported their family’s income. The largest disparities in frequency between the ACT and FAFSA measures were in the two extreme categories of “$24,000 or less” (where there are far fewer ACT responses than FAFSA) and “more than $150,000” (where there are far more ACT responses than FAFSA).

These differences affected aggregate measures of financial need in the sample. A common measure of poverty among college students is eligibility for the need-based Pell Grant. However, using the ACT income categories alone, and estimates of how many students in each income category are typically Pell-eligible, we would conclude that 30% of students would be eligible for a Pell Grant. Using the Expected Family Contribution in our data, 38% of students would be eligible for a Pell Grant. Another measure of financial need commonly used in education research is eligibility for free or reduced-price lunch, which typically requires students to fall under 185% of the federal poverty guideline. Using household sizes from our data and the endpoints of each income category from the survey measure, 16% to 25% of students would be eligible for free or reduced-price lunch (U.S. Department of Health and Human Services, 2008); however, using parental AGI as the income measure from the FAFSA, 26% of students would be eligible.
We linked the survey and FAFSA measures within each student’s record to show how misreporting varies across the income distribution. Figure 2 is a heat map using color to denote the frequency in each box of a nine-by-nine grid representing each combination of survey and FAFSA income categories. If all students were exactly correct about their parental income, the frequency would be concentrated on the diagonal from lower left to upper right, with less frequency off-diagonal. In these data, there was a clear concentration of students near the diagonal, indicating students made mostly small errors. Tracing the highest-frequency combinations did not produce a straight diagonal, but a curve skewed toward higher income answers on the survey than on the FAFSA. This curvature implies students tended to overreport parental income.

A different way to assess accuracy is to look at the spread of FAFSA income conditional on an ACT income category. If students were accurate, there should be very little spread outside the boundaries of the provided ACT response. Figures 3a - 3i show nine histograms. Each histogram was restricted to students who provided a particular ACT income response. The actual FAFSA measure of income in dollars is displayed in $5,000 bins. A zero income value was imputed for students who did not provide parental income on the FAFSA because their family received federal means-tested benefits. Behind the blue FAFSA frequencies are shaded red areas that represent the provided ACT response category and one adjacent category above and below.

The blue frequency distribution should fall entirely within the dark shaded red area if all students were correct. For example, the histogram in Figure 3b is based on students who said their parents earned $24,000 to $36,000. The modal bin was in fact $25,000 to $30,000, but much of the FAFSA income distribution lied below $24,000 and above $36,000. Often the modal FAFSA income was below the shaded area, indicating that of students who provided a given survey response, the most common actual income was below the survey response range. This is consistent with overreporting.
We did additional regression analysis to determine which student characteristics were associated with knowledge of parental income. We found higher accuracy among students who appeared better prepared academically and financially for college. Students with higher mathematics subscores and/or higher reading subscores on the ACT, and those who completed a core college preparatory curriculum were all more likely to choose the correct income range.

A strong predictor of accuracy was whether students reported they expected to receive financial aid for college. These students made fewer errors than the students who did not expect to receive financial aid but who ended up applying anyway. Conditional on student characteristics in high school, there was not a strong relationship between financial knowledge and later outcomes such as graduation rate.

*Figure 2.* Heat map of income category, linking FAFSA and ACT sources. Sources: Illinois State Board of Education, Illinois Student Assistance Commission.
Research brief: Do high school students know their parents' income?

a. FAFSA frequency, conditional on ACT category: $0–24,000
   - Area implied by ACT category
   - Adjacent ACT categories

b. FAFSA frequency, conditional on ACT category: $24,000–36,000
   - Area implied by ACT category
   - Adjacent ACT categories

c. FAFSA frequency, conditional on ACT category: $36,000–50,000
   - Area implied by ACT category
   - Adjacent ACT categories

d. FAFSA frequency, conditional on ACT category: $50,000–60,000
   - Area implied by ACT category
   - Adjacent ACT categories

e. FAFSA frequency, conditional on ACT category: $60,000–80,000
   - Area implied by ACT category
   - Adjacent ACT categories

f. FAFSA frequency, conditional on ACT category: $80,000–100,000
   - Area implied by ACT category
   - Adjacent ACT categories
We found that 24% of the time students correctly chose the income range that actually contained their parental income from the nine income ranges provided on the survey. Choosing the correct category was the most common outcome, and an additional 31% of students were off by just one income range category above or below, meaning that more than half of the students were within roughly $30,000 dollars. This finding is encouraging, given other evidence about students’ lack of financial literacy.

Among those students who were incorrect, they were twice as likely to overestimate as to underestimate parental income. This result was true for small errors and large errors, and for lower- as well as higher-income students. Overestimation could come from...
several sources. Lacking direct knowledge of parental income, students may guess based on their family’s consumption or housing. In the case of very low-income parents, consumption and housing could be supported by public benefit programs, and students may therefore assume parental income is higher than what would appear on the AGI. This may also be true for very high-wealth parents who own their homes. In general, consumption may be higher than current income for households who have access to credit. However, we did not find strong evidence for differences in overestimation by family income. Systematic overestimation could appear in these data even with students having accurate knowledge, if students counted parents outside their household in their survey responses, or if income decreased between the survey and the FAFSA.

Overestimating parental income can have two adverse consequences once students learn the accurate income at FAFSA filing time. On one hand, students may be surprised to find their parents can contribute less to their education than they expected, and they may be underprepared financially for college. On the other hand, students may be surprised to find the government or other sources have offered them more aid than they expected. This could have led them to invest less in preparing academically, thinking college would be unaffordable.

Discussion

Our data provide another example where self-reports of income may be inaccurate, a growing trend in household surveys (Meyer, Mok, & Sullivan, 2015). Because students tend to overreport parental income, research relying on student reports may understate rates of poverty and economic vulnerability.

Our data also shed light on the perceived problem of parents not talking to their children about money. In one national survey of parents and their children aged 8 to 14, 27% of parent respondents said it was not important to talk to children about family finances (T. Rowe Price, 2015). At the same time, 85% expected their child to go to college, but 37% said they rarely or never discussed financial planning for college with their child. Despite these deficits, we still found that many students can accurately state their parental income, and students who were inaccurate did not tend to have markedly worse outcomes. Studies of school-based interventions show promise (Stoddard & Urban, 2016), but less is known about encouraging within-family discussions of finances.

Because a college education remains vitally important, improving financial planning for college could be a worthy investment of time and resources.

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