

## **Perceived Cost Among Underrepresented College Students: Challenges, Assets, and Support Resources**

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### **Abstract**

Although research on cost perceptions is flourishing, surprisingly little is known about the cost landscape for underrepresented college students (URS). We used a mixed-methods approach with liberal arts students to (a) compare cost perceptions among 113 URS and 303 non-URS via survey measures and (b) explore the challenges, assets, and support resources leveraged by 14 URS via semi-structured interviews. URS students reported higher overall costs than non-URS, with psychological costs looming especially large. Thematic analysis showed that URS experienced a complex set of costs (identity liminality, academic unpreparedness, insufficient institutional supports) and utilized a rich set of assets (values-driven engagement, self-reliance, community grounded supports). Findings provide a nuanced picture of URS' motivation that can inform culturally responsive theories and practices.

### **Theoretical Framework and Objectives**

Engaging the academic work of college can be highly rewarding, but also incurs costs including the burden of effort, the opportunities sacrificed, the negative emotions, and the fear of failure. Recent work using Situated Expectancy Value Theory (SEVT; Eccles & Wigfield, 2020) has operationalized and empirically assessed these costs and documented their negative impact on achievement and retention (e.g., Flake et al., 2015; Robinson et al., 2019). Far less work, however, has examined how cost may be experienced by students who are underrepresented in higher education, including those from historically marginalized communities (Black, Latiné, Indigenous) and those who are the first in their family to attend college.

This is a critical gap because underrepresented students (URS) often navigate experiences that may elevate and complexify their cost perceptions. Indeed, URS often contend with stereotyping and discrimination (e.g. Azmitia et al., 2018; Harper, 2015; Totonchi et al., 2021), cultural dissonance (Archer et al., 2022; Matthews & Wigfield, 2024), ongoing family obligations (Covarrubias et al., 2019), and academic unpreparedness (Redford & Hoyer, 2017; Guillory & Wolverton, 2008). Yet the small body of research with URS populations is mixed, with some studies showing that URS report *higher* costs than their non-URS peers (Beymer & Rosenzweig, 2023; Goldman et al., 2022; McKellar et al., 2024) and others showing few differences or even *lower* costs at the start of a new semester (Christiaans et al., 2024; Robinson et al., 2019). Additional research is needed to clarify these conflicting accounts of cost for URS, especially because existing studies have focused exclusively on STEM courses, where the demands and belief systems may be unique (see Wu & Corpus, 2023).

One goal of the present study, therefore, was to examine how URS in the liberal arts experience the costs of college using a diversity of cost measures. A second goal was to identify the assets and resources URS draw upon to manage these costs, which is critical for avoiding a

deficit perspective (Kumar & DeCuir-Gunby, 2023; Matthews & Wigfield, 2024). We addressed these goals with an explanatory sequential mixed methods approach (Creswell & Plano Clark, 2018) that coupled (a) quantitative analyses comparing cost perceptions of URS and non-URS reported via survey measures with (b) thematic analysis of interviews that centered the experiences of URS regarding costs, assets, and support resources.

Because “simply existing in an academic space where one’s identity is marginalized exacts its own cost” (Matthews & Wigfield, 2024, p. 189), we expected that URS would perceive higher overall cost than their non-URS peers in a liberal arts college context. There was little basis for formal hypotheses regarding the specific dimensions of cost (effort, opportunity, emotional, psychological), but we tentatively anticipated that psychological cost may be especially salient for URS (see Robinson & Shankar, 2025). We also expected that URS would describe what is “costly” about their courses in unique ways (see Kumar et al., 2018). Based on prior research we thought URS might describe racialized opportunity costs – sacrifices made by minoritized students in predominantly white institutions (Matthews & Wigfield, 2024; Tabron & Venzant Chambers, 2019) – or cultural costs regarding threats to their identity (Archer et al., 2022) or complexities of relating to their home communities (Covarrubias et al., 2019).

Our tentative hypotheses regarding assets and supports were guided by prior research identifying background-specific strengths of URS that can be leveraged to promote academic success (Hernandez et al., 2021). In particular, we thought URS would potentially describe sustaining engagement via campus social supports (Azmitia et al., 2018; Fong et al., 2019), self-reliance and toughness (Covarrubias et al., 2019; Robinson & Shankar, 2025), and connection to family and home communities (Fong et al., 2019; Guillory & Woolverton, 2008).

## Method

### Participants and Procedure

416 students pursuing a liberal arts degree (66% White, 24% Asian, 15% Latiné, 6% Black, 4% Middle Eastern, 5% Indigenous; 12% First Gen) responded to campus announcements to complete a survey 4-6 weeks into the fall semester. The sample included 27% URS ( $n = 113$ ; Black, Latiné, Indigenous, and/or First Gen) and 73% non-URS ( $n = 303$ ). A subset of 14 URS participated in a semi-structured interview the following semester.

### Measures

**Cost.** Students were asked to select their “most challenging” class, and indicate agreement with a variety of cost statements using a 7-point scale (1=*strongly disagree*, 7 = *strongly agree*). We assessed four types of cost: effort cost (e.g., “This class requires too much effort”; 5 items,  $\alpha = .88$ ), opportunity cost (e.g., “I have to sacrifice too much to be in this class”; 4 items,  $\alpha = .89$ ), and emotional cost (e.g., “This class is too stressful”; 6 items,  $\alpha = .86$ ) using Flake et al.’s (2015) subscales, and psychological cost (e.g., “Failing this class would be hard for me to handle”; 6 items;  $\alpha = .88$ ) using Song et al.’s (2023) measure. In addition, we asked students to narratively describe the nature of the struggle in their chosen class.

**Academic Achievement.** End-of-semester grades in students’ “most challenging” classes were available for 79% of the sample and were collected from institutional records.

**Interview Protocol.** Students were asked to identify a class that was costly, explain the nature of that cost, and describe any assets or support resources they drew upon to manage it. See Table 1 for interview protocol.

## Results

### Quantitative Analyses

Independent-samples *t*-tests indicated significantly higher levels of overall cost, emotional cost, and psychological cost among URS than their non-URS peers. There was no difference in effort cost or opportunity cost. (See Table 2.) Because end-of-semester grades were lower for URS ( $M = 3.03$ ) than non-URS ( $M = 3.34$ ), we used ANCOVA to examine the effect of URS status on cost perceptions while controlling for end-of-semester grades. Using this more conservative approach, URS had significantly higher levels of overall cost and psychological cost, but there was no difference in effort, opportunity, or emotional cost (Figure 1).

Students' narrative responses about the nature of cost were coded with strong inter-rater reliability ( $\kappa = .86$ ). Chi-square tests of independence were used to examine differences between URS and non-URS in code frequencies (Table 3). URS described many aspects of cost consistent with non-URS (e.g., heavy workload, difficult material, stress), but were more likely to indicate worry about performance, concerns about impression management, and difficulties with help-seeking – all arguably forms of psychological cost. They were less likely to report concerns related to self-directed learning.

### Thematic Analysis

Using thematic analysis (Braun & Clarke, 2012), we developed a reliable coding scheme for the interview transcripts ( $\kappa = .87$ ) and identified five major themes (Table 4).

**Theme 1: The perception of academic unpreparedness creates stress and erodes confidence.** Many URS felt underprepared for the rigor of college due to gaps in their high school education. One student explained, “the school I went to tried its best, but we didn’t have lots of school funding...it was obvious that people in my class had a much better education than me.” This likely contributed to the achievement-related anxiety expressed in nearly every interview. Indeed, this burden left many feeling disheartened and behind: “I felt like I was three steps behind and everyone was like five steps ahead of me which was very discouraging.”

**Theme 2: Students experience liminality as they negotiate differences in background, worldview, and representation across contexts.** URS frequently described feeling caught between two worlds—never fully at home in the culture of their institution, yet increasingly distant from the communities they came from. “People are out of touch,” one student explained, “I have friends who are like, ‘Well just quit one of your jobs.’ I know they mean well, but they just don’t understand.” Others described hypervisibility in class, where “professors look at you whenever we talk about anything racial or ethnic...everyone’s silent and expects you to be the spokesperson.” Adapting to campus norms also had implications for identity; as one participant put it, “I don’t want to be less [Latina]... I feel like I’m straying further from the person I would be if I was back home.”

**Theme 3: Students leverage identity, values, and purpose to persist through difficulty.** URS were often driven by values grounded in family and community. As one student put it, “at the root of it is my mother’s voice...the truth is, there is no try, there is only do...follow the plan, not the feeling.” Using a gritty approach, many pushed through self-doubt or discomfort with help-seeking, often putting academic work in a broader perspective. As one student explained, “a really big part of why I want to perform so well in classes [is] because I know that people like

me, like my parents, didn't get the chance to do this...I'm going to be the change that they need."

**Theme 4: Supportive faculty, peers, and resources facilitate success, while their absence heightens struggle.** Many participants described experiences of peer microaggressions or professor inaccessibility. One student described her professor's unsupportive response to her struggles: "he made it clear that this was more of a me problem than a him problem." In contrast, others spoke with relief about finding professors who were patient and validating: "[My professor] made me feel like I could never really say the wrong thing." Peers also provided crucial content support through study groups and shared struggles.

**Theme 5: In the face of institutional gaps, students draw upon personal resources and community connections.** Out of necessity, URS became resourceful, turning to tools like YouTube to supplement instruction. In some cases students advocated for learning improvements when the system was failing them. For communal support, participants emphasized the value of connecting with others from a shared identity and leaning on familial support: "Just talking to my mom for emotional problems was helpful because I feel like nobody here can actually understand."

### **Conclusions and Significance**

URS attending a predominantly white, liberal arts institution reported higher overall costs than non-URS, with effect sizes in the small-to-medium range. Although there were no differences in effort or opportunity cost (cf. Beymer & Rosenzweig, 2023; Goldman et al., 2022), psychological cost was especially salient, consistent with Robinson and Shankar (2025). The prominence of psychological cost was reflected both in standard survey items capturing fear of failure and in qualitative responses indicating additional threats to self. Such psychological threats included self-doubt arising from academic underpreparation and identity threat arising from cultural dissonance, representational burdens, and insufficiently supportive structures. Future research should expand survey measures of psychological cost to include these nuances, which were common to URS experiences and are reflective of the broader literature regarding URS in collegiate contexts (e.g., Covarrubias et al., 2019; Tabron & Venzant Chambers, 2019).

Our expansion beyond STEM disciplines appears to be critical for a full understanding of cost for URS. Indeed, a number of interview participants indicated that identity salience varies by academic discipline (Table 4), often describing social science and humanities classrooms as places where racialized costs are pronounced. This may help to explain the lack of racialized experiences in the narratives of Robinson and Shankar's (2025) minoritized students, who were drawn exclusively from STEM disciplines. It is imperative, therefore, that future work on cost perceptions for URS include a wide range of academic disciplines.

Interviews also revealed powerful assets leveraged by URS to address costs and fuel persistence. Consistent with previous research (Covarrubias et al., 2019; Guillory & Wolverton, 2008), many URS were motivated by a sense of community obligation and interdependence, where succeeding in college was not just a personal goal but a collective one anchored in the sacrifices and hopes of their family members. This sense of purpose helped prevent derailment in the face of inadequate institutional supports, and perhaps inspired self-reliance to stay afloat (see Covarrubias et al., 2019; Robinson & Shankar, 2025). Overall, then, these findings provide a potential roadmap for mobilizing URS' assets and providing effective support structures (e.g., identity-themed residential communities, affirmation of identity-based strengths). More

generally, connecting cost perceptions of URS to the framework of SEVT allows us to draw upon a rich knowledge base for understanding motivational processes and designing cost-reduction interventions.

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**Table 1**

*Interview Protocol for Underrepresented Students*

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**Specific Cost Context**

First, I'd like you to think about a class that was a source of struggle or challenge – one that brought up negative feelings about what was required of you, or what you had to sacrifice in order to engage. This could be one of your current classes, or a class you have taken at any point during your time in college.

- a. Description of Cost
  - What class was it? Can you tell me a little bit about what made this class a source of struggle?
- b. Belonging and Identity
  - I'm curious about how connected you felt to others within the class – the students, professor, or others available for support.
  - What parts of your identity felt most salient in the class? Did you feel like the class was designed for students like you? Did you feel like your background and identity were respected? Did you ever encounter any discrimination or microaggressions in class?
  - Are there communities of support outside of the class that you drew upon to help manage the challenges?
- c. Expectancies and Values
  - How confident were you in your ability to do well in the class? How well did you end up performing? How did your sense of competence in the class and your expectations for performance impact your engagement?
  - Did the class content matter to you? Did it seem useful in a broader sense? Was it meaningful to you or to communities you feel connected to?
- d. Psychological and Emotional Costs (based on responses to survey data)
  - [impression management] How important was it to you how your peers and professors perceived you? Can you describe any specific actions you took or thoughts you had about managing your impression?
  - [help-seeking] I'm wondering if you can you think about a specific time you needed help in this class. Did you know where or how to seek help? Have professors, peers, or support staff been helpful?
  - [worry about performance] How much did you worry about your performance in the class? How did that impact your overall engagement?
  - [stress] I'm wondering if you can think about stress more broadly. How did feelings of stress impact you? Are there any strategies you used to cope with negative feelings or manage the stress?
- e. Mitigating Strategies
  - What do you think might have made the situation less of a struggle? Are there supports or resources that would have been helpful?

**Racialized Opportunity Cost**

- a. Representational Costs



- As you know, the students who attend [college] are predominantly white and relatively wealthy. What do you see as the challenges of attending this type of college?
- b. Community Costs
- Has attending [college] impacted your sense of closeness or compatibility with your family or home community?
- c. Psychosocial Costs
- Do you ever feel like you have to forfeit aspects of your cultural identity to achieve success in the college environment?

### **Cost Improvement**

Now I'm wondering if you can think about a class that really felt like a struggle or challenge initially, but that improved substantially over time. Maybe you had a class where for the first month you had a lot of negative feelings or fear of failure or where it was just really difficult to manage the workload. But then things shifted.

- Have you had such an experience?
- What changed?
- What strategies did you use?
- What contextual supports or resources made that happen?

### **Balancing**

- I'm curious about the way you balance all the factors that contribute to your engagement in academics. On the one hand you have things that are motivating, and on the other hand you have things that make it hard. Can you speak to how you navigate that balance?
  - More generally: how do you sustain motivation in school?
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**Table 2***Perceived Cost by Underrepresented Student (URS) Status*

|                    | URS         | non-URS     |                              |
|--------------------|-------------|-------------|------------------------------|
|                    | M (SD)      | M (SD)      | <i>t</i> (414) =             |
| Cost Composite     | 4.94 (.93)  | 4.57 (.93)  | 3.53, $p < .001$ , $d = .39$ |
| Effort Cost        | 4.72 (1.21) | 4.49 (1.18) | 1.80, $p = .07$ , $d = .20$  |
| Opportunity Cost   | 4.07 (1.48) | 3.83 (1.40) | 1.55, $p = .12$ , $d = .17$  |
| Emotional Cost     | 4.97 (1.21) | 4.54 (1.19) | 3.23, $p < .001$ , $d = .36$ |
| Psychological Cost | 5.75 (1.03) | 5.20 (1.36) | 3.89, $p < .001$ , $d = .43$ |

*Note.* URS  $n = 113$ ; non-URS  $n = 303$ .

**Table 3***Code Frequencies Regarding the Nature of Cost<sup>1</sup> by Underrepresented (URS) Status*

|                                              | <b>Total</b><br>(n = 416) | <b>URS</b><br>(n = 113) | <b>Non-URS</b><br>(n = 303) |
|----------------------------------------------|---------------------------|-------------------------|-----------------------------|
| Heavy Workload                               | 40%                       | 40%                     | 45%                         |
| Difficult Material                           | 33%                       | 36%                     | 32%                         |
| Stress                                       | 23%                       | 28%                     | 21%                         |
| Unreasonable Expectations or Policies        | 18%                       | 22%                     | 16%                         |
| Lack Background                              | 18%                       | 22%                     | 17%                         |
| Logistical Difficulties                      | 17%                       | 15%                     | 18%                         |
| <b>Worry about Performance<sup>2</sup></b>   | 15%                       | <b>24%</b>              | <b>11%</b>                  |
| Comparison to Peers                          | 15%                       | 19%                     | 14%                         |
| Compensatory Comments                        | 12%                       | 12%                     | 12%                         |
| Required for Graduation or Career            | 11%                       | 13%                     | 11%                         |
| Opportunity Cost - Academic                  | 10%                       | 11%                     | 10%                         |
| Personally Meaningful Pursuit                | 10%                       | 12%                     | 9%                          |
| Lack Interest                                | 10%                       | 8%                      | 10%                         |
| Class Participation Difficulties             | 10%                       | 8%                      | 11%                         |
| Self-Regulation Challenges                   | 10%                       | 7%                      | 11%                         |
| Negative Self-Implications                   | 10%                       | 10%                     | 10%                         |
| Feeling Behind                               | 9%                        | 11%                     | 9%                          |
| Disorganized or Confusing Instruction        | 8%                        | 8%                      | 8%                          |
| Quick Pace                                   | 8%                        | 10%                     | 7%                          |
| Opportunity Cost - Nonacademic               | 6%                        | 8%                      | 6%                          |
| <b>Impression Management<sup>2</sup></b>     | 6%                        | <b>10%</b>              | <b>5%</b>                   |
| Exhaustion                                   | 5%                        | 5%                      | 5%                          |
| Low Perceived Ability                        | 5%                        | 4%                      | 6%                          |
| Problematic Peer Dynamics                    | 5%                        | 6%                      | 4%                          |
| Problematic Professor Behavior               | 4%                        | 6%                      | 3%                          |
| <b>Self-Directed Learning<sup>2</sup></b>    | 4%                        | <b>1%</b>               | <b>6%</b>                   |
| Irrelevant Content                           | 4%                        | 4%                      | 4%                          |
| Disability                                   | 3%                        | 5%                      | 3%                          |
| Unexpected Content                           | 2%                        | 1%                      | 3%                          |
| Cumulative Nature                            | 2%                        | 3%                      | 2%                          |
| Reputation on Campus                         | 2%                        | 2%                      | 2%                          |
| <b>Help-Seeking Difficulties<sup>2</sup></b> | 2%                        | <b>5%</b>               | <b>&lt;1%</b>               |
| Still Hard Despite Efforts                   | 2%                        | 1%                      | 2%                          |
| Identity-Based Disconnection                 | 2%                        | 4%                      | 1%                          |
| Belonging Uncertainty (Skills-Based)         | 2%                        | 2%                      | 2%                          |

*Note.* <sup>1</sup>Students' descriptions of cost were based on their "most challenging" class, which could be categorized as STEM (41%), Social Science (24%), Humanities (29%), or Senior Thesis (6%). <sup>2</sup>Chi-square tests showed significant differences between URS and non-URS in the frequency of reporting several codes (indicated by highlighting): Worry about performance,  $\chi^2 (1, N = 416) = 10.56, p < .001$ ; Impression management,  $\chi^2 (1, N = 416) = 3.81, p = .05$ ; Self-directed learning,  $\chi^2 (1, N = 416) = 4.44, p = .035$ ; Help-seeking difficulties,  $\chi^2 (1, N = 416) = 12.34, p < .001$ .

**Table 4***Code Frequencies Grouped by Theme*

| Code                                                                                                                                       | Percent of sample ( <i>n</i> = 14) |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Theme 1: The perception of academic unpreparedness creates stress and erodes confidence.</b>                                            |                                    |
| Insufficient preparation pre-college                                                                                                       | 43                                 |
| Anxiety over not doing well                                                                                                                | 93                                 |
| Low confidence/helplessness                                                                                                                | 93                                 |
| Understanding less than peers                                                                                                              | 71                                 |
| Impression management concerns                                                                                                             | 71                                 |
| Overthinking                                                                                                                               | 43                                 |
| Hard content                                                                                                                               | 57                                 |
| Heavy workload                                                                                                                             | 50                                 |
| Class requires too much effort                                                                                                             | 43                                 |
| <b>Theme 2: Students experience liminality as they negotiate differences in background, worldview, and representation across contexts.</b> |                                    |
| No space to express identity                                                                                                               | 57                                 |
| Hypervisibility                                                                                                                            | 50                                 |
| Feel different due to identity, background, SES                                                                                            | 100                                |
| Can't pursue same opportunities as peers                                                                                                   | 29                                 |
| Frustrated by imposition of insular thinking                                                                                               | 71                                 |
| Feel disconnected from home community                                                                                                      | 36                                 |
| Pushback from home community                                                                                                               | 36                                 |
| Invisible minoritized identity                                                                                                             | 21                                 |
| Trying to assimilate to classroom culture                                                                                                  | 21                                 |
| Demands of personal life                                                                                                                   | 50                                 |
| Difficulty balancing schoolwork with employment                                                                                            | 36                                 |
| <b>Theme 3: Students leverage identity, values, and purpose to persist through difficulty.</b>                                             |                                    |
| Drawing on values and belief systems                                                                                                       | 36                                 |
| Putting things into perspective                                                                                                            | 64                                 |
| Cognizant of how actions affect home community                                                                                             | 43                                 |
| High value course content                                                                                                                  | 93                                 |
| Powering through                                                                                                                           | 64                                 |
| Help seeking despite discomfort                                                                                                            | 43                                 |
| Embracing the liberal arts model                                                                                                           | 21                                 |
| Seeing oneself gain skills and knowledge                                                                                                   | 14                                 |

**Theme 4: Supportive faculty, peers, and resources facilitate success, while their absence heightens struggle.**

*Absence of supports is harmful*

|                                    |    |
|------------------------------------|----|
| Professor unsupportive             | 79 |
| Office hours negative or unhelpful | 50 |
| Unreasonable expectations          | 71 |
| Confusing instruction              | 36 |
| Peers unsupportive                 | 64 |

*Presence of supports is helpful*

|                                         |    |
|-----------------------------------------|----|
| Professor supportive                    | 86 |
| Office hours helpful                    | 93 |
| Broader institutional supports          | 93 |
| Peer content support                    | 86 |
| Connection to classmates                | 71 |
| Knowing that others are also struggling | 43 |

**Theme 5: In the face of institutional gaps, students draw upon personal resources and community connections.**

|                                                 |    |
|-------------------------------------------------|----|
| Turning to outside content resources            | 29 |
| Self regulation                                 | 93 |
| Agentic engagement                              | 21 |
| Support from or appreciation for home community | 79 |
| Support from those with shared identity         | 50 |
| Support from friends                            | 71 |
| Letting go of impression management             | 21 |
| Letting go of certain standards                 | 43 |

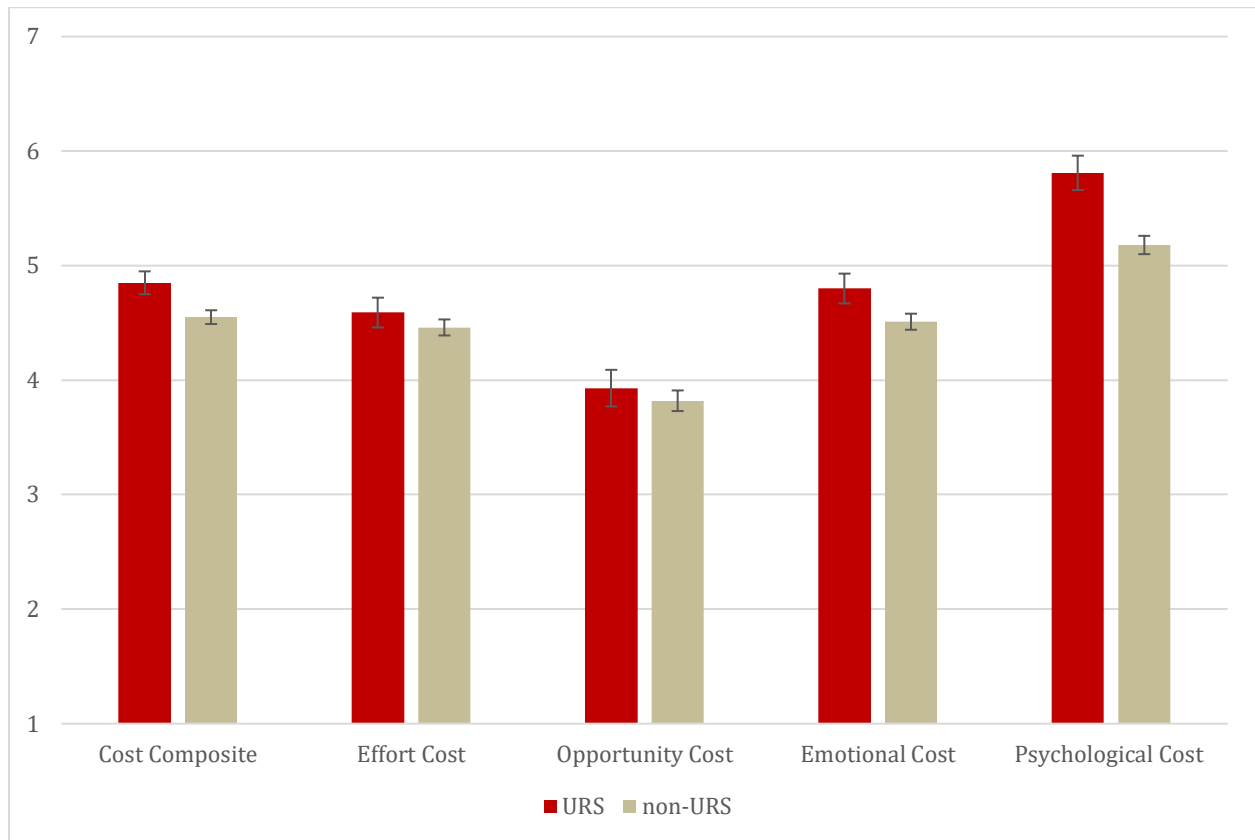
**Additional codes**

|                                                               |    |
|---------------------------------------------------------------|----|
| Low value course content                                      | 71 |
| Problematic class structure or timing                         | 43 |
| Course pacing is too fast or slow                             | 29 |
| Difficulty balancing schoolwork with other classes            | 21 |
| Identity is made salient in some disciplines more than others | 29 |
| Taking a break                                                | 43 |
| Hobbies and self care                                         | 36 |
| Dropping or withdrawing from the class                        | 21 |
| Arriving to college well-equipped                             | 14 |

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**Figure 1**

*Grade-Adjusted Cost Perceptions by Underrepresented Student (URS) Status*



*Note.* Estimated marginal means are adjusted for end-of-semester grades. URS had significantly higher levels of overall cost [ $F(1, 361) = 5.74, p = .017$ , partial  $\eta^2 = .02$ ] and psychological cost [ $F(1, 361) = 12.88, p < .001$ , partial  $\eta^2 = .03$ ]. There was no difference in effort cost [ $F(1, 361) = .68, p = .41$ , partial  $\eta^2 = .002$ ], opportunity cost [ $F(1, 361) = .50, p = .48$ , partial  $\eta^2 = .001$ ], or emotional cost [ $F(1, 361) = 2.70, p = .101$ , partial  $\eta^2 = .01$ ]. Error bars show standard error.