



# Student Financial Aid

## Grants, Scholarships, Loans, and Beyond

By: Ramya Pallappa  
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# Introduction

- College costs are rising every year, and this creates a big challenge for many students and their families.
- That's where financial aid comes in — it helps cover tuition, housing, and other expenses that students need to succeed in college.
- There are different types of aid, like grants, scholarships, loans, and work-study programs.
- The main goal of financial aid is to make sure that higher education is accessible and affordable, no matter a student's background or family income.

# Background

- Being a senior in high school, I often searched for colleges to find details like acceptance rates, tuition fees, and available grants.
- I realized this information was scattered and not always easy to access.
- That experience inspired me to create this project — a tool to simplify and present student financial aid information clearly.

# Example Breakdown of Financial Aid

- Grants – need-based aid, often from federal or state governments.
- Scholarships – merit-based or awarded by private organizations and institutions.
- Loans – money borrowed from federal or private sources, must be repaid with interest.
- Work-Study – part-time jobs provided by schools to help students earn money for expenses.
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# Student Financial Aid

Understand college costs in seconds

Search a school to estimate grants, merit, loans, out-of-pocket costs, acceptance rate, and tuition fees at a glance.

Target School

e.g., Georgia Institute of Tech

Household Income  65000

Unweighted GPA  3.6

## Estimated breakdown



Grants i\$6,000

Merit Scholarships i\$0

Work-Study i\$2,000

Loans i\$7,000

Out-of-Pocket i\$1,800

Net price: \$16,800 i •Source: U.S. Dept. of Education College Scorecard.

When we launch the application, it doesn't start empty. Instead, it loads with some default values – for example, a sample college, an income of sixty-five thousand, and a GPA of 3.6

# Searching a college by its name

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Target School

 George Stone Technical College  
Pensacola, FL

 Georgetown University  
Washington, DC

 Georgia College & State University  
Milledgeville, GA

 Georgia Institute of Technology-Main Campus  
Atlanta, GA

 Georgia Southwestern State University  
Americus, GA

 Prince George's Community College  
Largo, MD

 Central Georgia Technical College  
Warner Robins, GA

 Chamberlain University-Georgia  
Sandy Springs, GA

 College of Coastal Georgia  
Brunswick, GA

 DeVry University-Georgia  
Decatur, GA

Household Income

Unweighted GPA

### Estimated breakdown



Grants i\$6,000  
Merit Scholarships i\$0  
Work-Study i\$2,000  
Loans i\$7,000  
Out-of-Pocket i\$1,800

Net price: \$16,800 i •Source: U.S. Dept. of Education College Scorecard.

Generate Plan

To search for a college, simply start typing its name. For example, if we type 'Georgia' once we enter at least 3 letters, a list of matching colleges will automatically appear in a dropdown menu.

# Analysis: Selected College Breakdown



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Search a school to estimate grants, merit, loans, out-of-pocket costs, acceptance rate, and tuition fees at a glance.

Target School

Georgia Institute of Technol

  
Georgia Institute of Technology-Main Campus  
Atlanta, GA

Household Income  65000

Unweighted GPA  3.6

Georgia Institute of Technology-Main Campus  
Atlanta, GA

Acceptance rate-**16.5%** In-state tuition fees-\$**11,764** Out-of-state tuition fees-\$**32,876**

### Estimated breakdown



Grants i\$5,000

Merit Scholarships i\$2,000

Work-Study i\$2,000

Loans i\$2,549

Out-of-Pocket i\$1,800

Net price: \$13,349 • Source: U.S. Dept. of Education College Scorecard.

Generate Plan

After selecting Georgia Institute of Technology and clicking Generate Plan, the application displays key information:

- Acceptance rate (16.5%)
- Tuition fees (in-state vs. out-of-state)
- Merit scholarships (based on GPA)
- A visual breakdown chart of estimated grants, scholarships, loans, and out-of-pocket costs
- This gives students a clear, school-specific financial aid picture at a glance.

# Impact of GPA on Merit Scholarships

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Target School

Georgia Institute of Technol

  
Georgia Institute of Technology-Main Campus  
Atlanta, GA

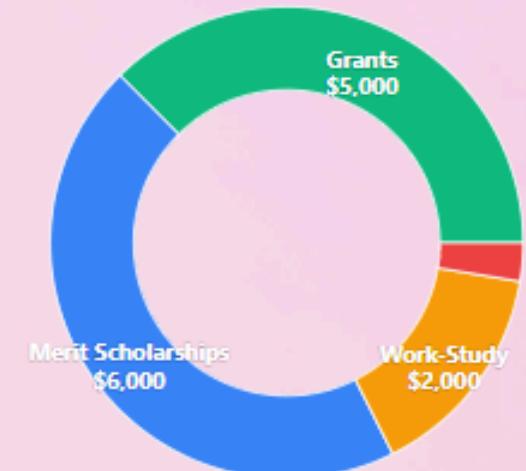
Household Income  65000

Unweighted GPA  4

Georgia Institute of Technology-Main Campus  
Atlanta, GA

Acceptance rate-16.5% In-state tuition fees-\$11,764 Out-of-state tuition fees-\$32,876

### Estimated breakdown



Grants i\$5,000

Merit Scholarships i\$6,000

Work-Study i\$2,000

Loans i\$0

Out-of-Pocket i\$349

Net price: \$13,349 • Source: U.S. Dept. of Education College Scorecard.

Generate Plan

- After changing the GPA from 3.6 to 4.0, the application recalculates financial aid.
- The Merit Scholarship increases from \$2,000 to \$6,000, showing how academic performance directly impacts available aid.
- This demonstrates the importance of GPA in reducing overall out-of-pocket costs for students.
- Students with higher GPAs can significantly lower costs and reduce reliance on loans.

# Impact of Household Income on Financial Aid

## Student Financial Aid

Understand college costs in seconds

Search a school to estimate grants, merit, loans, out-of-pocket costs, acceptance rate, and tuition fees at a glance.

Target School

Georgia Institute of Technol

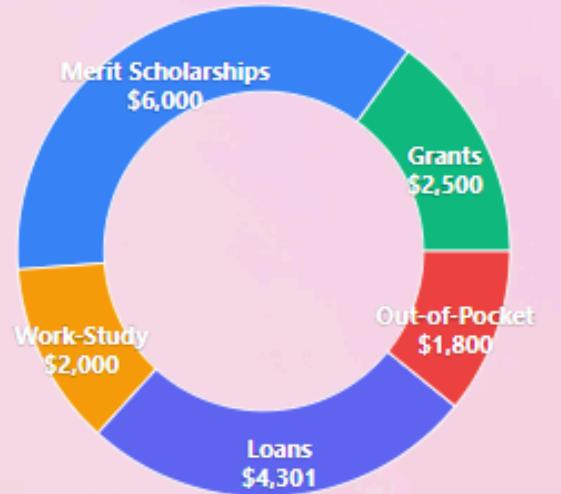
 Georgia Institute of Technology-Main Campus  
Atlanta, GA

Household Income   
Unweighted GPA

Georgia Institute of Technology-Main Campus  
Atlanta, GA

Acceptance rate-**16.5%** In-state tuition fees-\$**11,764** Out-of-state tuition fees-\$**32,876**

### Estimated breakdown



Grants i\$2,500

Merit Scholarships i\$6,000

Work-Study i\$2,000

Loans i\$4,301

Out-of-Pocket i\$1,800

Net price: \$16,601 i •Source: U.S. Dept. of Education College Scorecard.

Generate Plan

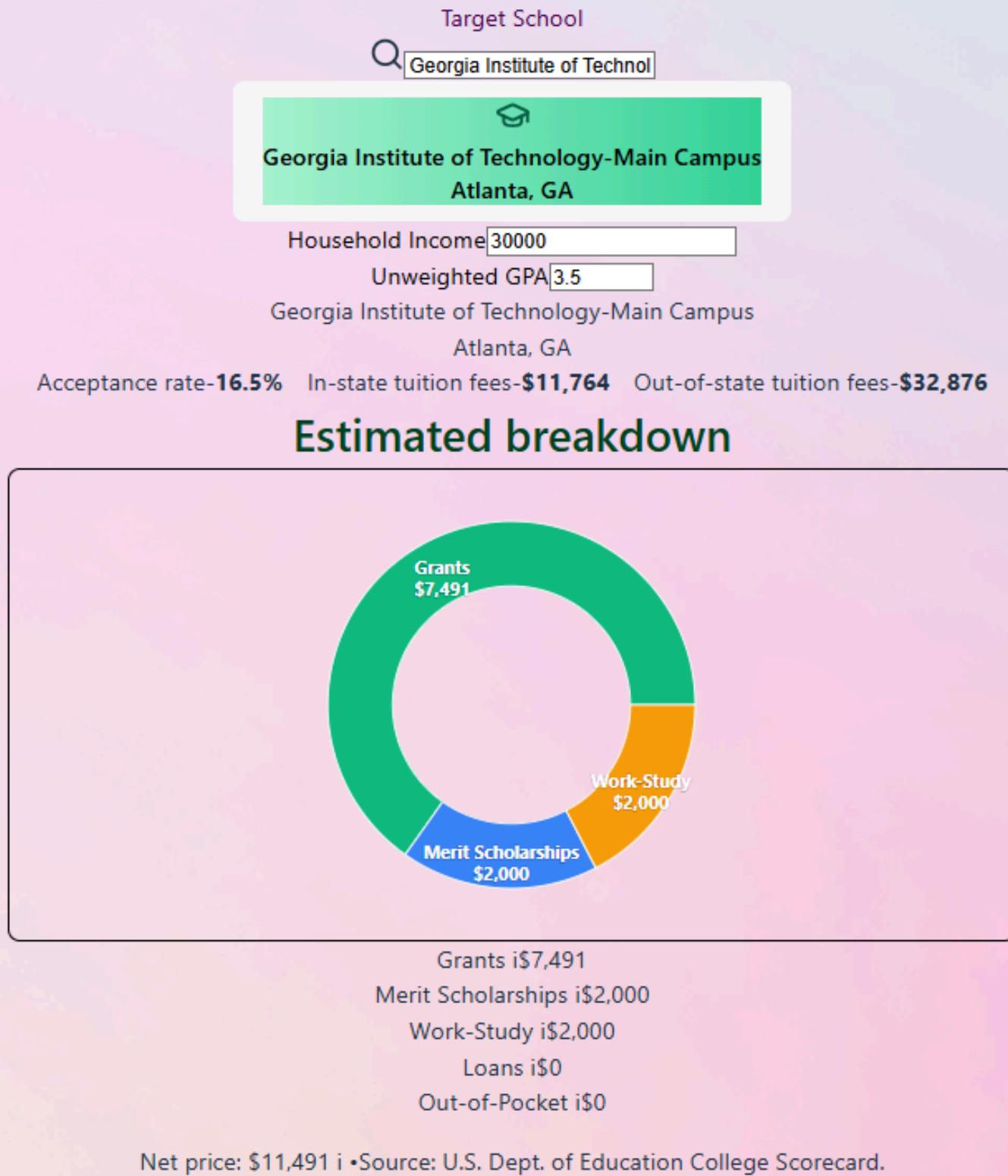
- After increasing the household income to \$100,000, the application recalculates financial aid.
- Grants decreased to \$2,500, since higher-income families qualify for less need-based aid.
- Merit scholarships remain the same at \$6,000 (since GPA still drives merit-based aid).
- Loans and out-of-pocket contributions adjust to balance the total cost.
- This shows how family income is a key factor in determining need-based financial aid.

# Impact of Low Income on Financial Aid

## Student Financial Aid

Understand college costs in seconds

Search a school to estimate grants, merit, loans, out-of-pocket costs, acceptance rate, and tuition fees at a glance.



- Household income was set to \$30,000 with a GPA of 3.5.
- The application recalculates and shows:
- Grants increased to \$7,491 (since lower-income families receive more need-based aid).
- Merit Scholarships = \$2,000 (still based on GPA).
- Work-Study = \$2,000 (student is eligible).
- Loans = \$0 (aid covered most of the need).
- Out-of-Pocket = \$0 (family doesn't pay directly).
- The net price drops to \$11,491, much lower than previous higher-income examples.

# High GPA + Low Income: Best-Case Financial Aid

## Student Financial Aid

Understand college costs in seconds

Search a school to estimate grants, merit, loans, out-of-pocket costs, acceptance rate, and tuition fees at a glance.

Target School

Georgia Institute of Technol

  
Georgia Institute of Technology-Main Campus  
Atlanta, GA

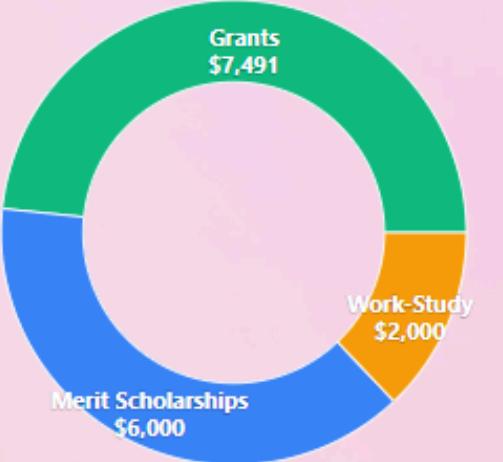
Household Income  30000

Unweighted GPA  4

Georgia Institute of Technology-Main Campus  
Atlanta, GA

Acceptance rate-**16.5%** In-state tuition fees-\$**11,764** Out-of-state tuition fees-\$**32,876**

### Estimated breakdown



Grants i\$7,491

Merit Scholarships i\$6,000

Work-Study i\$2,000

Loans i\$0

Out-of-Pocket i\$0

Net price: \$15,491 •Source: U.S. Dept. of Education College Scorecard.

Generate Plan

- Household income was set to \$30,000 with a GPA of 4.0.
- The application recalculates and shows:
- Grants = \$7,491 (high need-based aid).
- Merit Scholarships = \$6,000 (maximum merit award for strong GPA).
- Work-Study = \$2,000 (eligible for additional support).
- Loans = \$0 (aid covered the cost).
- Out-of-Pocket = \$0 (no direct family contribution).
- The net price = \$15,491, one of the most affordable outcomes.
- This demonstrates how academic performance + financial need together can maximize aid and minimize cost.

# High Income + Low GPA: Worst-Case Financial Aid

## Student Financial Aid

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Target School

Georgia Institute of Technol



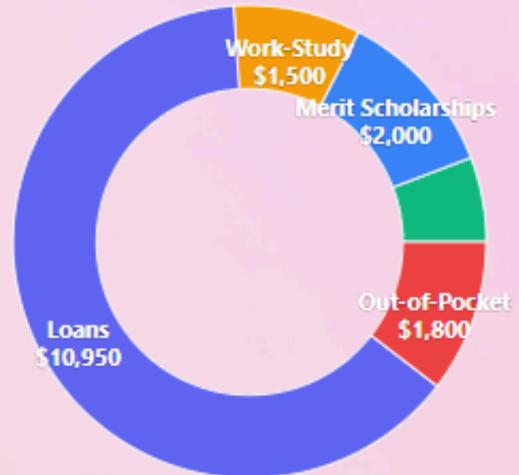
Household Income  120000

Unweighted GPA  3.4

Georgia Institute of Technology-Main Campus  
Atlanta, GA

Acceptance rate-**16.5%** In-state tuition fees-\$**11,764** Out-of-state tuition fees-\$**32,876**

### Estimated breakdown



Grants i\$1,000

Merit Scholarships i\$2,000

Work-Study i\$1,500

Loans i\$10,950

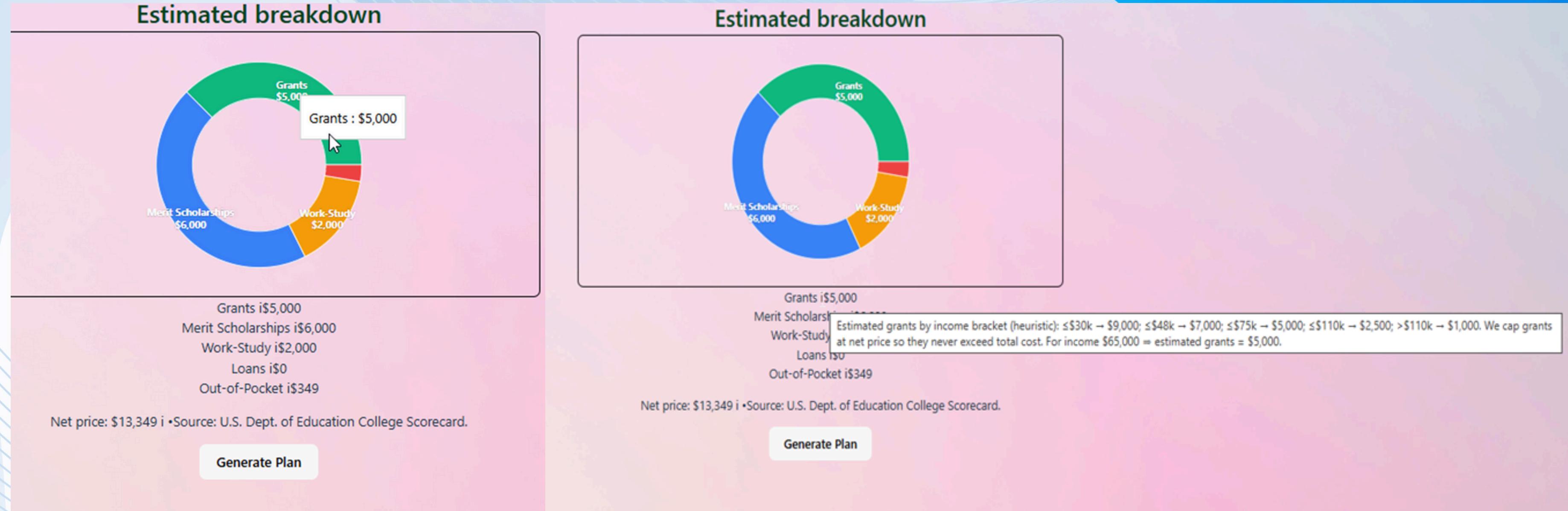
Out-of-Pocket i\$1,800

Net price: \$17,250 i •Source: U.S. Dept. of Education College Scorecard.

Generate Plan

- Household income was set to \$120,000 with a GPA of 3.4.
- Grants dropped to just \$1,000 (very limited need-based aid for high-income families).
- Merit Scholarships = \$2,000 (low GPA keeps awards minimal).
- Work-Study = \$1,500 (reduced because income is higher).
- Loans surged to \$10,950 to cover unmet need.
- Out-of-Pocket = \$1,800 (direct family contribution).
- The net price increased to \$17,250, one of the most expensive outcomes.

# Interactive Features: Tooltips



- Hovering over chart sections reveals extra details (e.g., grant brackets, exact values).
- Enhances clarity and makes financial data easier for students to understand

# Technology Stack

- Frontend → React , TypeScript , Tailwind , Recharts  
- Backend → Node.js , Express 
- APIs/Data → College Scorecard API  (U.S. Dept. of Education)
- Tools → GitHub , Figma , Vercel  



# Thank You