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The 2026 Major ROI Report

Inflation-Adjusted Edition

Net Present Value and Internal Rate of Return analysis for 40 college majors at three discount rates and three cost tiers.

A MajorMatch Research Report
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Executive Summary

This report applies the corporate-finance Net Present Value framework to the household decision of paying for a college degree. We compute NPV and Internal Rate of Return for 40 college majors at three real (inflation-adjusted) discount rates: 4%, 6%, and 8%. We do this at three cost tiers: public in-state, public out-of-state, and private nonprofit.

Headline findings:

- At a 6% real discount rate and public in-state cost, 14 of 40 majors (35%) have negative Net Present Value. At private nonprofit cost, that rises to 17 of 40 (43%).

- Internal Rate of Return ranges from approximately 25% (petroleum engineering) to negative 5% (theater and drama). The average bachelor's degree returns about 12% IRR.

- The undiscounted "$1.2 million lifetime premium" figure popularized by Georgetown CEW is approximately twice the present-value premium that matters to a household balance sheet.

- Cost tier matters as much as major choice. The same major at three different cost tiers can produce NPV outcomes that differ by $300,000 or more.

- Engineering and computer-science majors at public in-state cost return roughly the same as long-run equity markets — with materially less risk.

Methodology notes (detailed in Section 2):

- 45-year horizon from age 18 to age 63
- Earnings: BLS OEWS 2024, NACE Salary Survey 2025, Census ACS Field of Bachelor's Degree
- Costs: NCES IPEDS net-of-aid price by sector
- Counterfactual: BLS Education Pays median earnings for high-school-only workers
- Anchor citations: NY Fed (Abel & Deitz), Hamilton Project (Hershbein & Kearney 2014), Georgetown CEW (Carnevale et al. "The College Payoff")

Methodology

Net Present Value (NPV) is the present-value sum of college-graduate earnings minus the present-value sum of high-school-only counterfactual earnings, less the cost of college. Each future cash flow is multiplied by 1 / (1 + r)^t where r is the real discount rate.

Internal Rate of Return (IRR) is the discount rate at which NPV equals zero — the breakeven hurdle rate. A 12% IRR means the degree creates value at any discount rate below 12%.

Three discount rates run in parallel:

4% real — for households with low-risk-tolerance baseline (cash, short Treasuries)
6% real — household hurdle rate for typical equity-leaning households
8% real — aggressive household hurdle rate equivalent to expected long-run equity return

Three cost tiers (NCES IPEDS net-of-aid 2024 inflated to 2026):

Public in-state: $23,000 per year × 4 years
Public out-of-state: $42,000 per year × 4 years
Private nonprofit: $58,000 per year × 4 years

Time horizon: ages 18 to 63 (45 years total).

Counterfactual earnings: BLS Education Pays median for HS-only workers, $36,000 at age 18 ramping to $58,000 at age 50, growing at 1.3% real per year.

College-graduate earnings: BLS OEWS by field of study, NACE Salary Survey 2025, Census ACS Field of Bachelor's Degree tables. Starting salary at age 22, mid-career at age 40, modest 5% growth through age 50, modest decline thereafter.

Part-time wages during college: $8,000 per year (offsets cost partially).

Anchor citations:
Federal Reserve Bank of New York (Abel & Deitz) — IRR by major, ongoing
Hamilton Project / Brookings (Hershbein & Kearney 2014) — NPV by major
Georgetown CEW (Carnevale et al.) — "The College Payoff" lifetime earnings

NPV & IRR by Major (Public In-State)

NPV in present-value 2026 dollars at three real discount rates. IRR is breakeven discount rate.

Major	NPV @ 4%	NPV @ 6%	NPV @ 8%	IRR	NPV @ 6% Pvt
Petroleum Engineering	$1,741,506	$1,120,816	$745,732	25.4%	$992,261
Software Engineering	$1,357,251	$860,989	$561,416	22.0%	$732,434
Computer Engineering	$1,273,650	$805,318	$522,540	21.3%	$676,763
Computer Science	$1,206,925	$758,911	$488,696	20.6%	$630,355
Pharmacy (PharmD path)	$1,202,455	$770,152	$506,897	22.0%	$641,597
Chemical Engineering	$1,116,729	$697,664	$445,064	19.6%	$569,109
Electrical Engineering	$1,056,599	$656,833	$415,976	19.0%	$528,277
Aerospace Engineering	$1,043,410	$645,681	$406,463	18.7%	$517,125
Actuarial Science	$1,017,033	$623,377	$387,437	18.0%	$494,821
Mechanical Engineering	$906,272	$554,755	$343,256	17.4%	$426,199
Statistics	$886,490	$538,027	$328,986	16.9%	$409,471
Finance	$886,490	$538,027	$328,986	16.9%	$409,471
Industrial Engineering	$816,077	$493,508	$299,624	16.4%	$364,952
Physics	$789,700	$471,204	$280,598	15.7%	$342,648
Economics	$789,700	$471,204	$280,598	15.7%	$342,648
Supply Chain Managemen	$755,946	$452,676	$270,535	15.7%	$324,121
Mathematics	$687,768	$402,537	$232,072	14.6%	$273,982
Civil Engineering	$672,345	$397,005	$231,660	14.8%	$268,450
Nursing (BSN)	$647,309	$400,871	$249,312	16.5%	$272,316
Accounting	$515,424	$289,351	$154,183	12.7%	$160,796
Management	$442,105	$237,368	$115,582	11.6%	$108,813
Business Administratio	$371,692	$192,849	$86,220	10.8%	$64,294
Marketing	$304,967	$146,442	$52,375	9.8%	$17,886
Health Sciences	$254,337	$118,651	$37,282	9.4%	-$9,904
Political Science	$249,978	$107,454	$23,424	8.8%	-$21,101
Philosophy	$141,452	$33,212	-$29,858	6.9%	-$95,344
Criminal Justice	$71,039	-$11,307	-$59,221	5.7%	-$139,863
Communications	$71,039	-$11,307	-$59,221	5.7%	-$139,863
Graphic Design	$71,039	-$11,307	-$59,221	5.7%	-$139,863
History	$57,851	-$22,459	-$68,734	5.3%	-$151,015
Journalism	$10,909	-$52,138	-$88,309	4.3%	-$180,694
Secondary Education	$10,909	-$52,138	-$88,309	4.3%	-$180,694
Psychology	$4,314	-$57,714	-$93,065	4.1%	-$186,270

Major	NPV @ 4%	NPV @ 6%	NPV @ 8%	IRR	NPV @ 6% Pvt
Sociology	$4,314	-$57,714	-$93,065	4.1%	-$186,270
Anthropology	$4,314	-$57,714	-$93,065	4.1%	-$186,270
English	$4,314	-$57,714	-$93,065	4.1%	-$186,270
Elementary Education	-$37,486	-$85,550	-$112,503	3.0%	-$214,105
Music	-$85,881	-$118,961	-$136,697	1.5%	-$247,517
Fine Arts	-$146,012	-$159,793	-$165,785	-1.1%	-$288,348
Theater/Drama	-$194,407	-$193,204	-$189,980	-4.7%	-$321,760

How to Use This Report

Step 1. Identify your student's likely major (or 2-3 candidates).
Use the major your student is realistically likely to study and complete, not the one you wish they would pick.

Step 2. Identify your expected cost tier.
Public in-state if your student will attend a state university with in-state tuition. Public out-of-state for non-resident state universities. Private nonprofit for most private four-year institutions.

Step 3. Look up the row in the NPV & IRR table.
Note both the NPV at 6% (the central estimate) and the IRR.

Step 4. Compare the IRR to your alternative.
The historical real return on the S&P 500 is approximately 7%. The current real yield on 10-year Treasuries is approximately 1.5-2%. If the IRR is below 7%, the degree is financially worse than buying an index fund with the same money.

Step 5. Stress-test with the 4% and 8% columns.
If the major's NPV is positive at 4% but negative at 8%, the decision is sensitive to your assumptions about alternative-investment returns. In that case, the qualitative factors should carry more weight.

Step 6. Read the companion analysis at majormatch.us/blog/real-roi-college-degree-npv-analysis/ for the full methodology and the five findings that should change how parents think about this.

Important reminders:

- These figures describe the median outcome for each major. Real students spread across a wide distribution.
- A negative-NPV major can still be the right choice. The number tells you what that choice costs in present-value terms — not whether to make it.
- Cost tier is the lever you control. Choosing a lower-cost school can convert a negative-NPV decision into a positive one without changing the major.

For the latest version and free college planning checklist:
majormatch.us/checklist/

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