

College Affordability: What the Research Says

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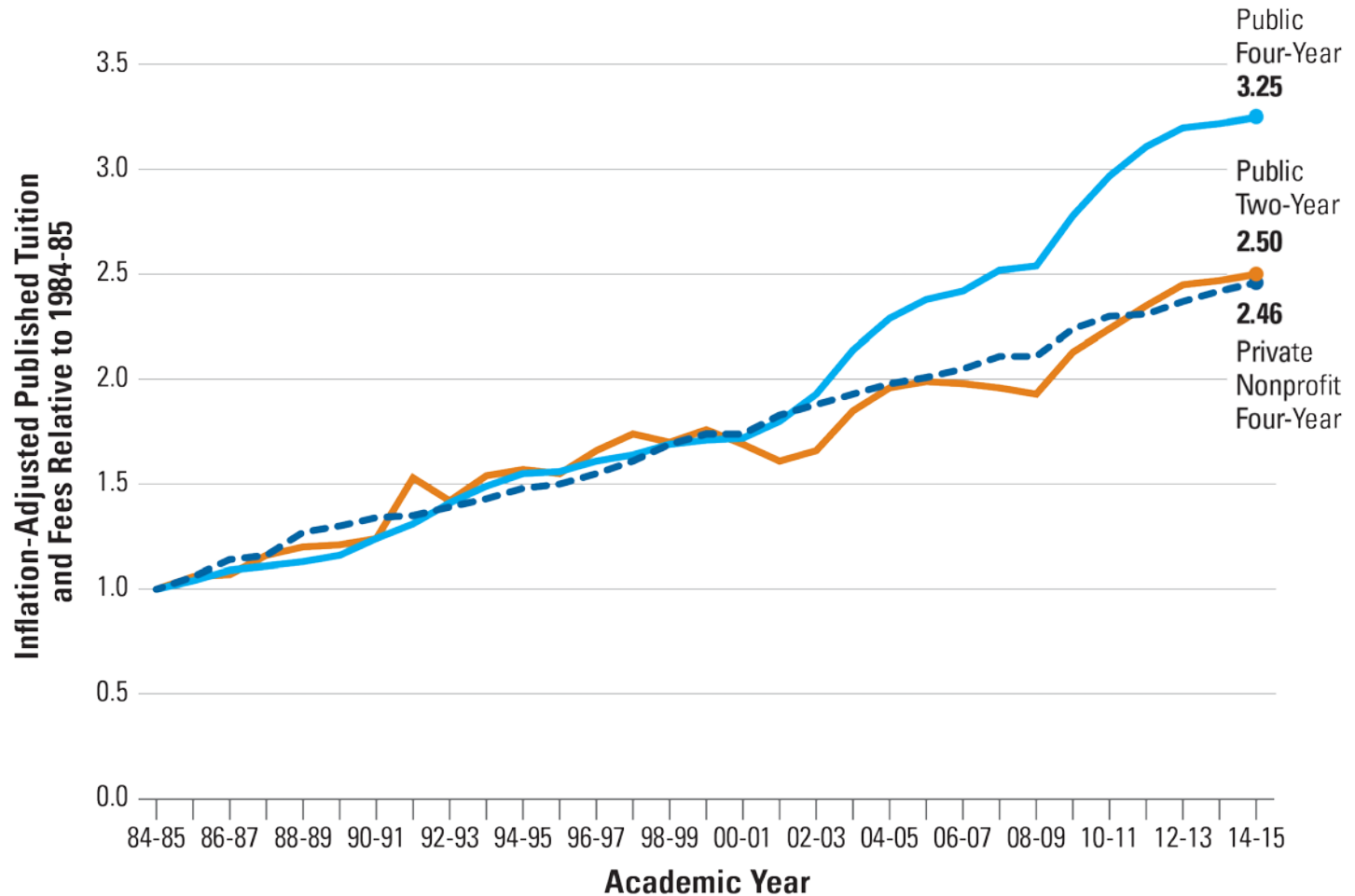
Questions about college affordability

- Does the price of college keep some students from attending?
- What are the impacts of increasing levels of student debt?
- What do we know about different strategies for providing financial aid?
- Can we reach attainment goals without increasing enrollment?

Does the price of college keep some students from attending?

- Does increasing tuition result in a drop in enrollment?
- Does increasing financial aid result in an increase in enrollment?
- Do different groups respond differently to changes in price?
- Does it make a difference what type of grant aid is used?

Inflation-Adjusted Published Tuition and Fees Relative to 1984-85, 1984-85 to 2014-15 (1984-85 = 1.0)



SOURCE: The College Board, *Trends in College Pricing 2014*, Figure 6

Average Tuition and Fees and Room and Board in 2014 Dollars, 1974-75 to 2014-15, Selected Years

| | Tuition and Fees in 2014 Dollars | | | | | | Tuition and Fees and Room and Board in 2014 Dollars | | | |
|-----------|----------------------------------|-----------------------|---------------------|-----------------------|--------------------|-----------------------|---|-----------------------|---------------------|-----------------------|
| | Private Nonprofit Four-Year | Five-Year % Change | Public Four-Year | Five-Year % Change | Public Two-Year | Five-Year % Change | Private Nonprofit Four-Year | Five-Year % Change | Public Four-Year | Five-Year % Change |
| 1974-75 | \$10,273 | — | \$2,469 | — | \$1,336 | — | \$16,475 | — | \$7,938 | — |
| 1979-80 | \$10,511 | 2% | \$2,405 | -3% | \$1,157 | -13% | \$16,339 | -1% | \$7,587 | -4% |
| 1984-85 | \$12,716 | 21% | \$2,810 | 17% | \$1,337 | 16% | \$19,342 | 18% | \$8,427 | 11% |
| 1989-90 | \$16,591 | 30% | \$3,248 | 16% | \$1,611 | 20% | \$24,049 | 24% | \$9,030 | 7% |
| 1994-95 | \$18,814 | 13% | \$4,343 | 34% | \$2,103 | 31% | \$26,487 | 10% | \$10,628 | 18% |
| 1999-2000 | \$22,179 | 18% | \$4,805 | 11% | \$2,357 | 12% | \$30,692 | 16% | \$11,548 | 9% |
| 2004-05 | \$25,215 | 14% | \$6,448 | 34% | \$2,615 | 11% | \$34,549 | 13% | \$14,310 | 24% |
| 2009-10 | \$28,476 | 13% | \$7,825 | 21% | \$2,842 | 9% | \$38,799 | 12% | \$16,855 | 18% |
| 2014-15 | \$31,231 | 10% | \$9,139 | 17% | \$3,347 | 18% | \$42,419 | 9% | \$18,943 | 12% |

SOURCE: The College Board, *Trends in College Pricing 2014*, Table 2A

Does increasing tuition result in a drop
in enrollment?

Historical Studies

- Leslie and Brinkman, 1987: a \$1,000 increase in tuition is associated with 3 percent drop in enrollment among 18-24 year olds (2014 dollars)
- Heller, 1997: a \$1000 increase in tuition is associated with a 3.4 percent drop in enrollment among 18-24 year olds (2014 dollars)

Recent Research

- Hemelt, 2011: a \$1,000 increase is associated with a decline in enrollment of 2.5%.
 - Larger impacts at public research universities
 - Smaller to no impact at open access, less selective institutions

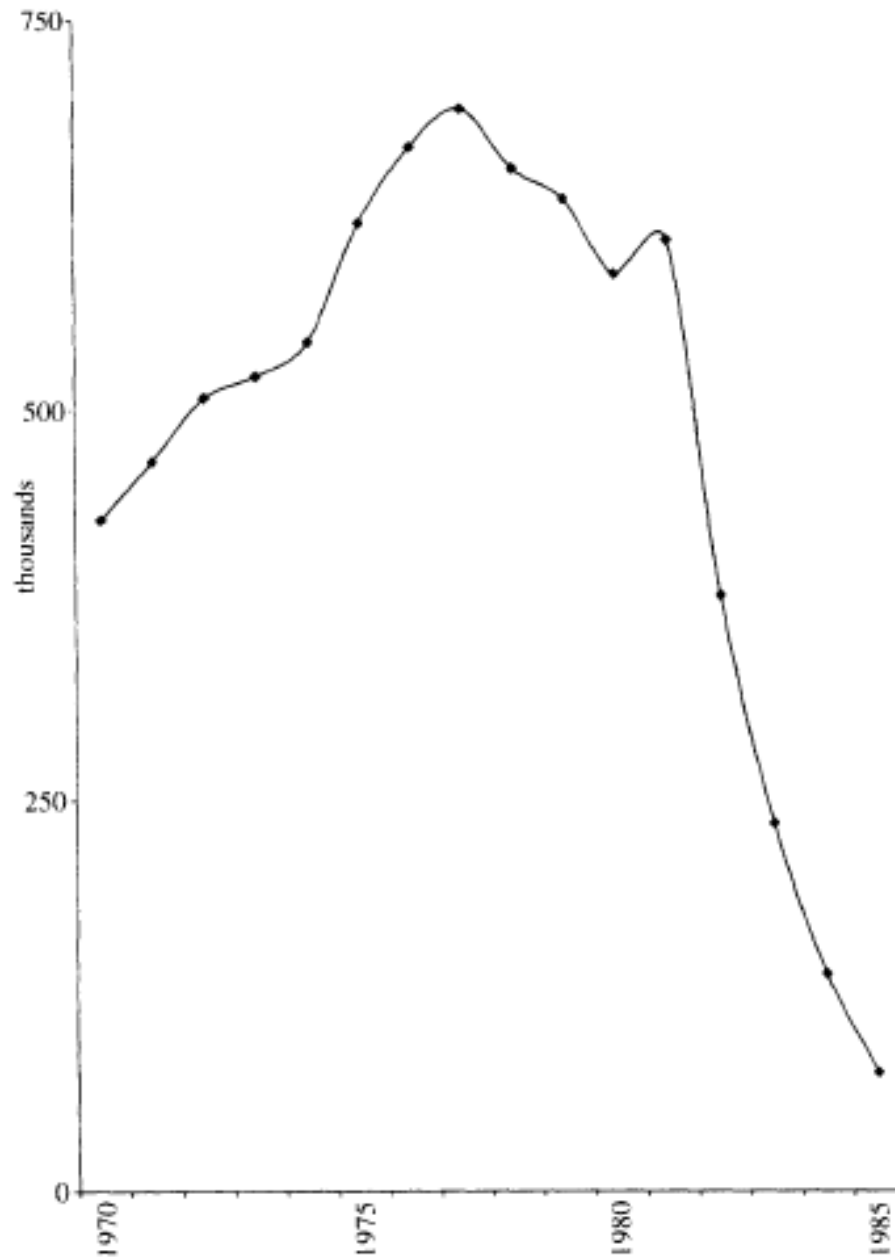
Does increasing grant aid result in an increase in enrollment?

Experimental/Quasi Experimental Evidence

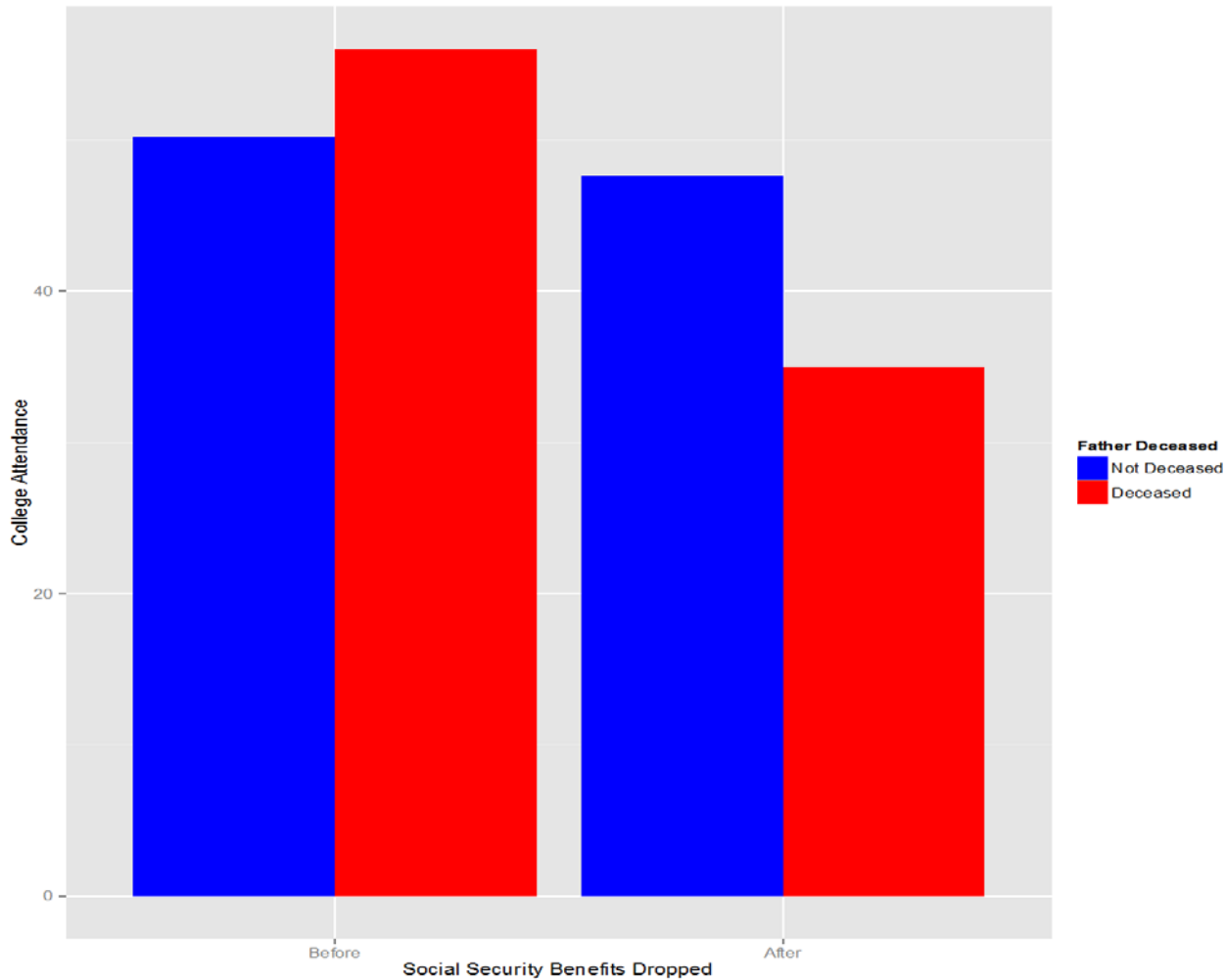
- Dynarski, 2003: Elimination of Social Security Benefits for College Attendance

“In summary ... estimates that do and do not account for unobservable differences across individuals reach similar conclusions: a \$1,000 drop in schooling costs increases college attendance by 3 to 4 percent-age points”

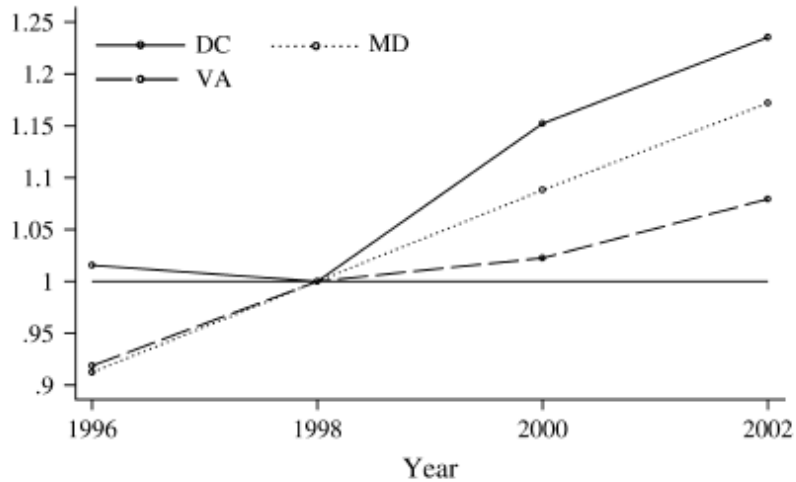
Dynarski: Change in Social Security Benefits



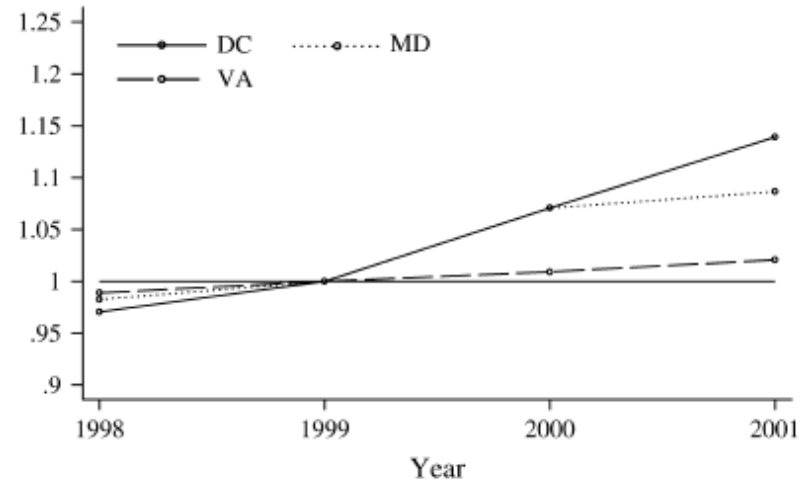
Dynarski: Before and After Social Security Benefits for College Dropped



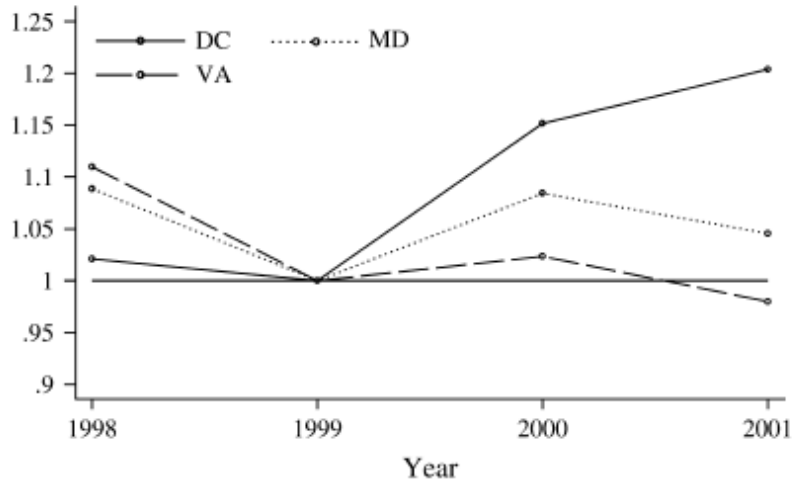
Kane, 2007: DC Tuition Assistance Grant



Enrollment of First-Time Freshmen, Recent HS Grads



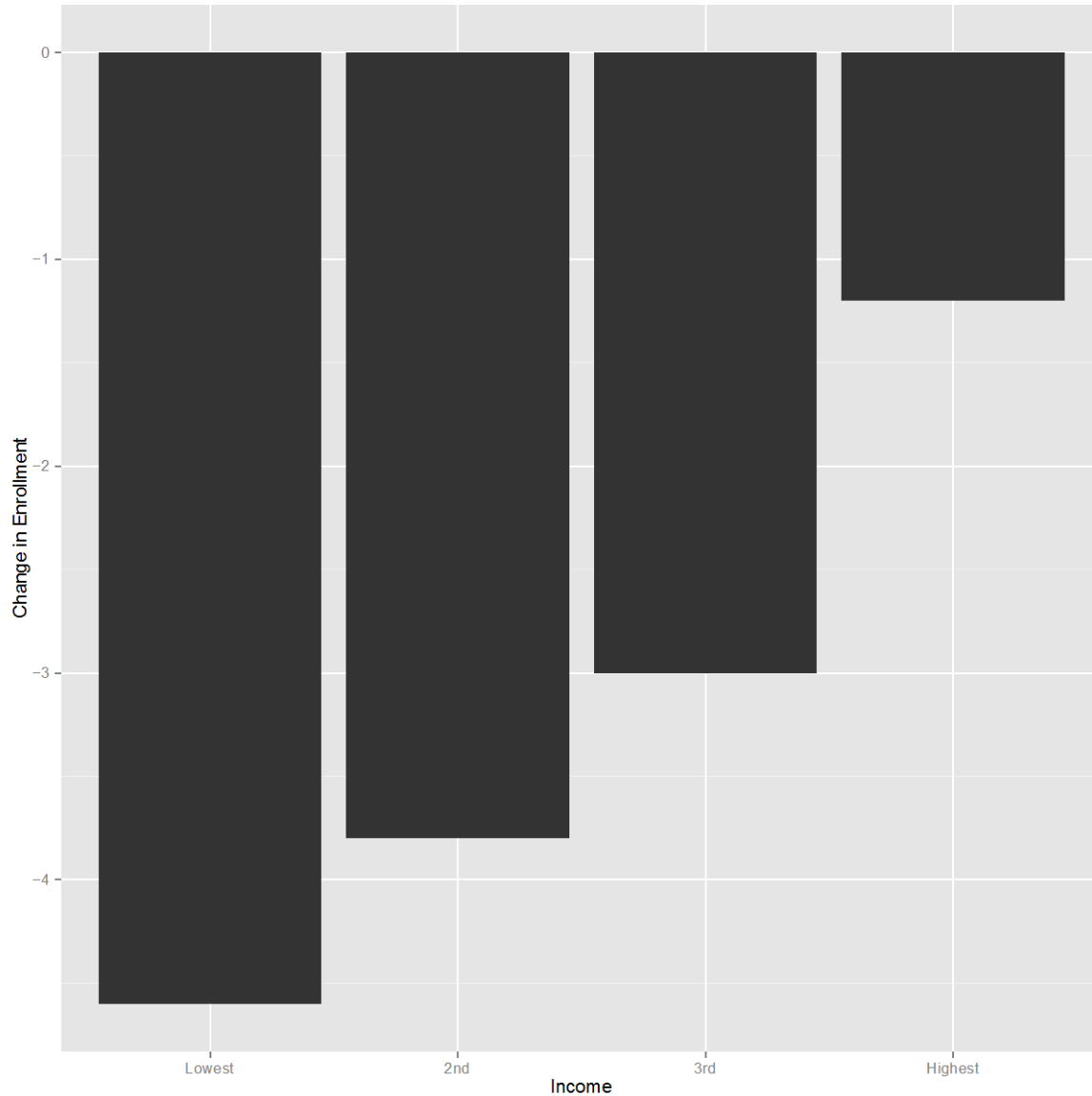
Number of FAFSA's Filed (Relative to 1999)



Number of Pell Recips w/ EFC < 2600 (Relative to 1999)

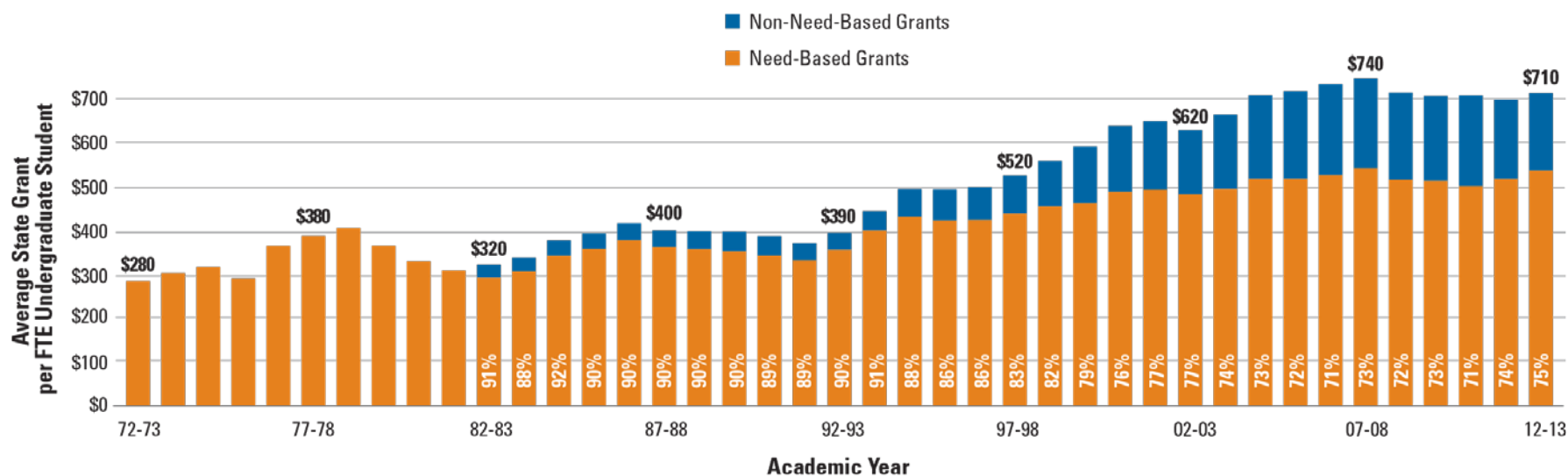
Do different groups respond differently to changes in price?

Kane, 1994: Impact of \$1,000 increase in net price on enrollment by income



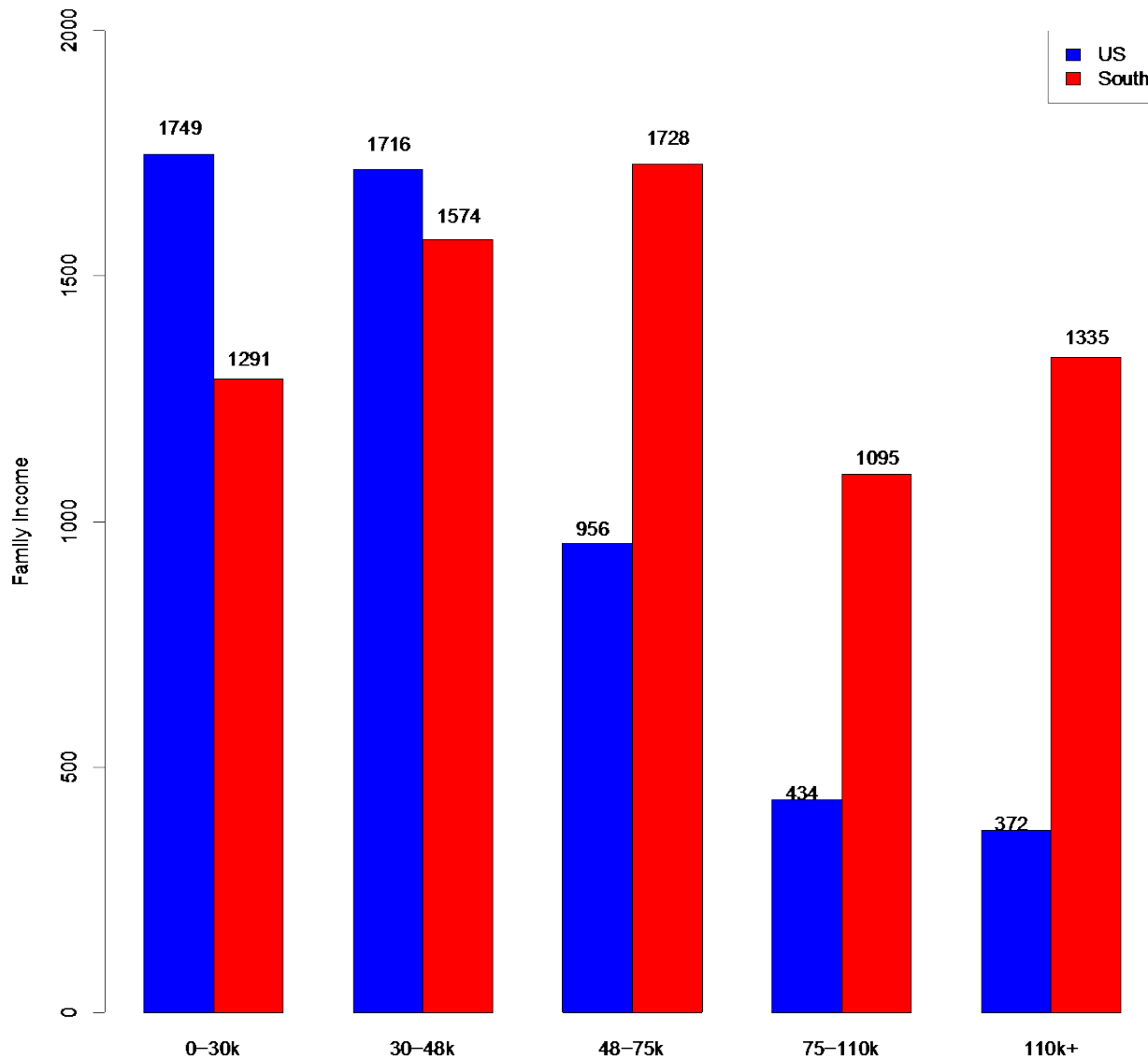
Does it matter if need-based aid is used or merit-based aid?

Need-Based and Non-Need-Based State Grants per Full-Time Equivalent (FTE) Undergraduate Student in 2012 Dollars, 1972-73 to 2012-13



SOURCE: The College Board, *Trends in Student Aid 2014*, Figure 26A

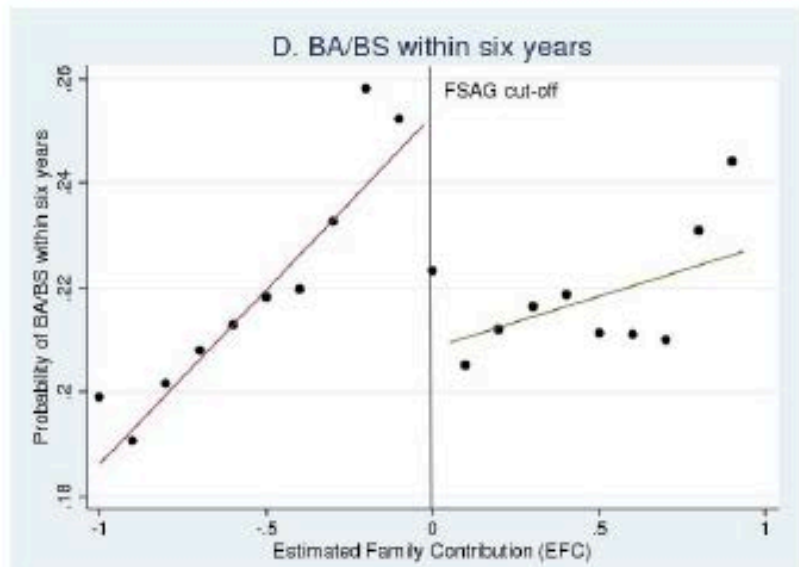
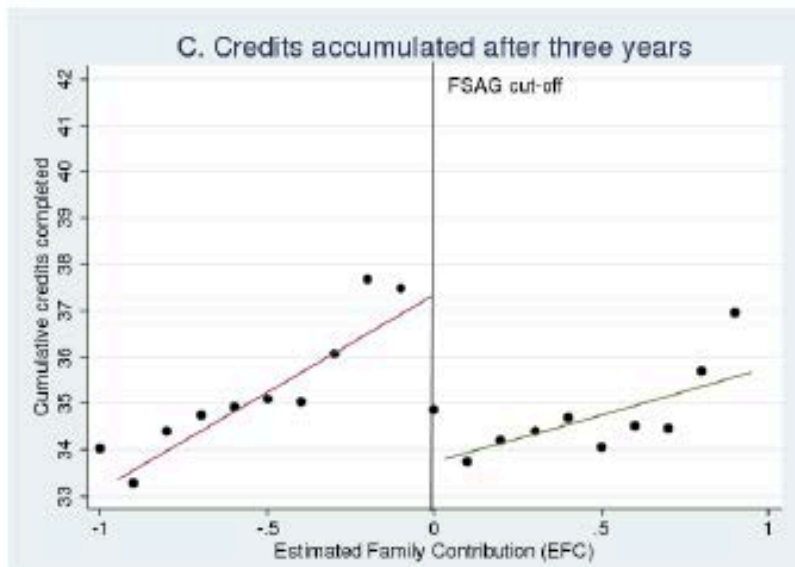
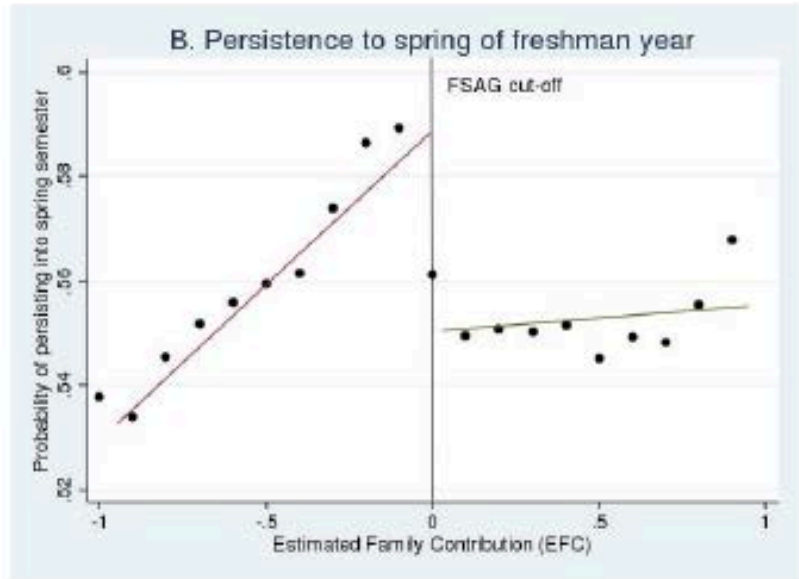
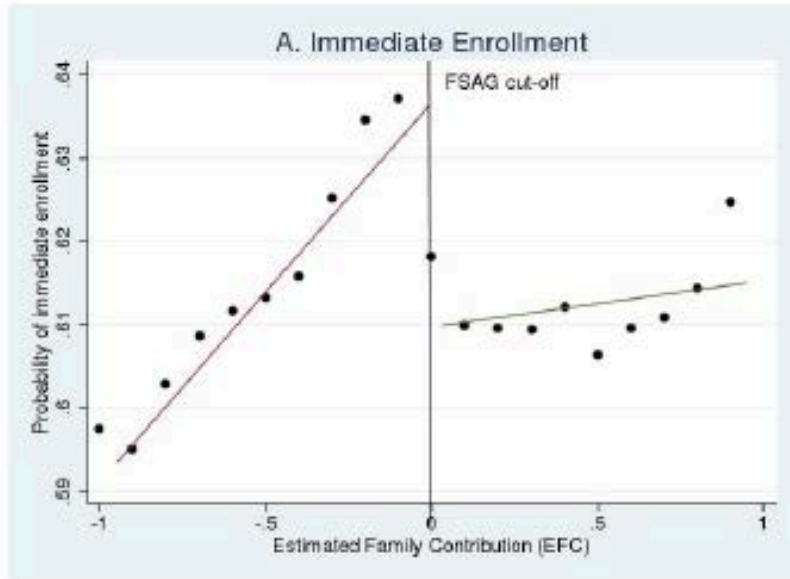
State Grant Amount by Income



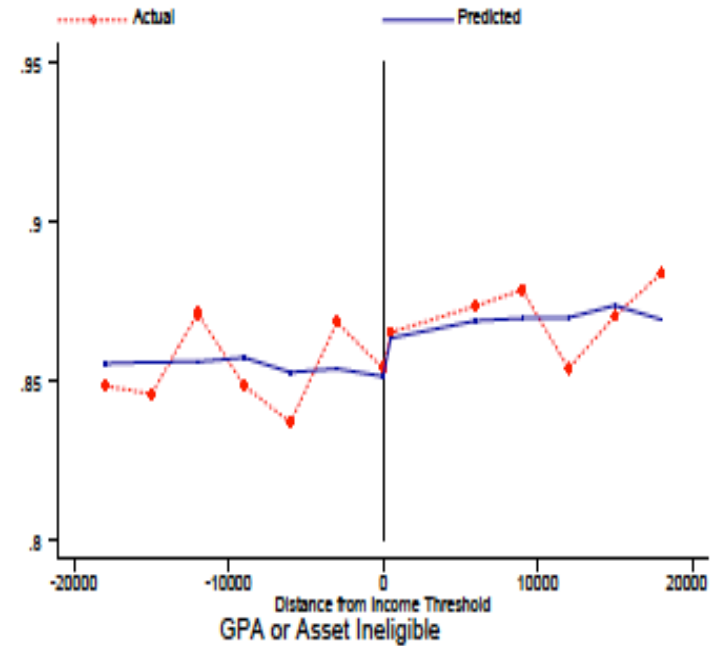
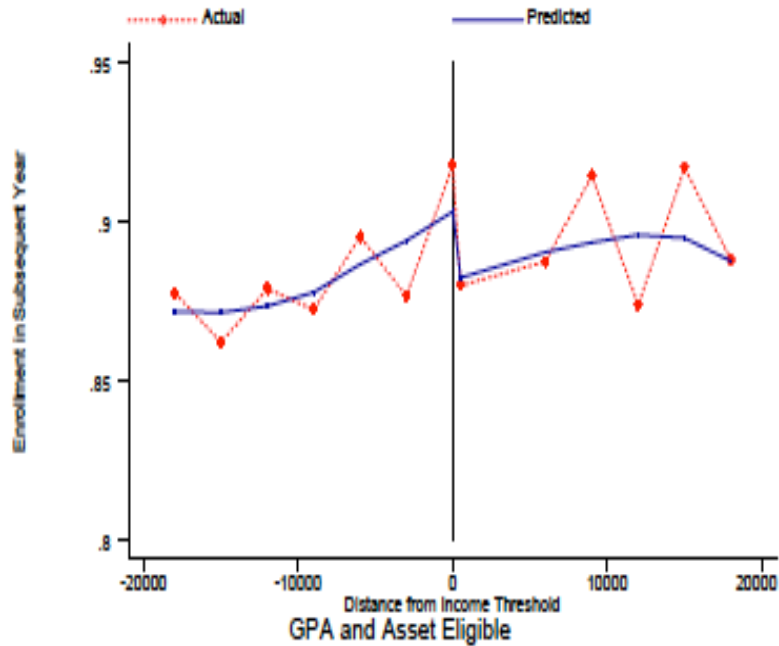
Average State Grant Amount

Note: Amounts are for full-time, dependent students attending public four-year Carnegie master's institutions. Source: National Postsecondary Student Aid Survey, 2011

Castleman and Long, 2013: Florida Student Assistance Program



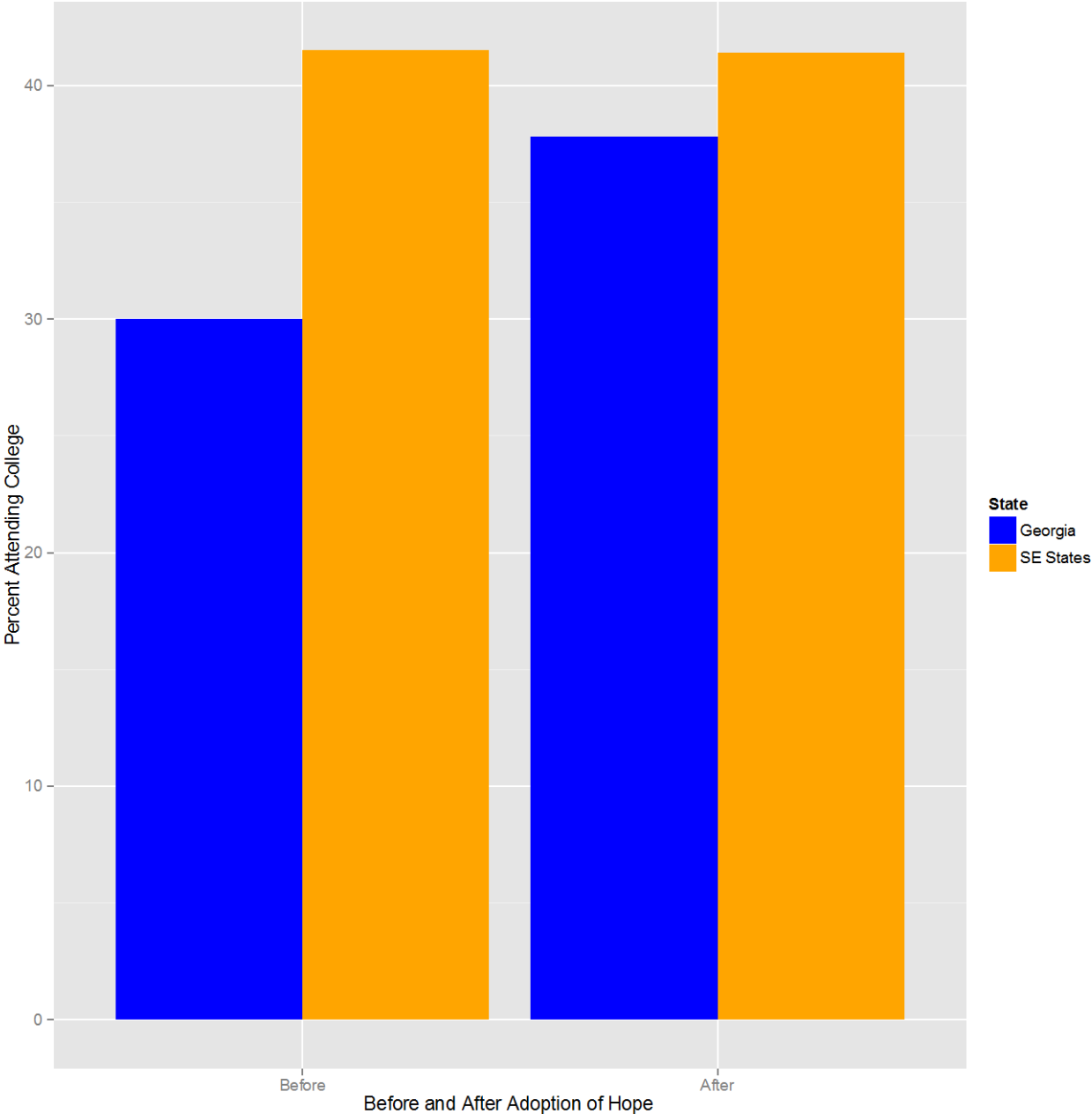
Kane, 2003: Cal Grant Program



Dynarski, 2000: HOPE Scholarship

“The results suggest that each \$1,000 in aid (\$1998) increased the college attendance rate in Georgia by 3.7 to 4.2 percentage points”

Dynarski, 2000: Impact of HOPE



Dynarski, 2000: Georgia HOPE

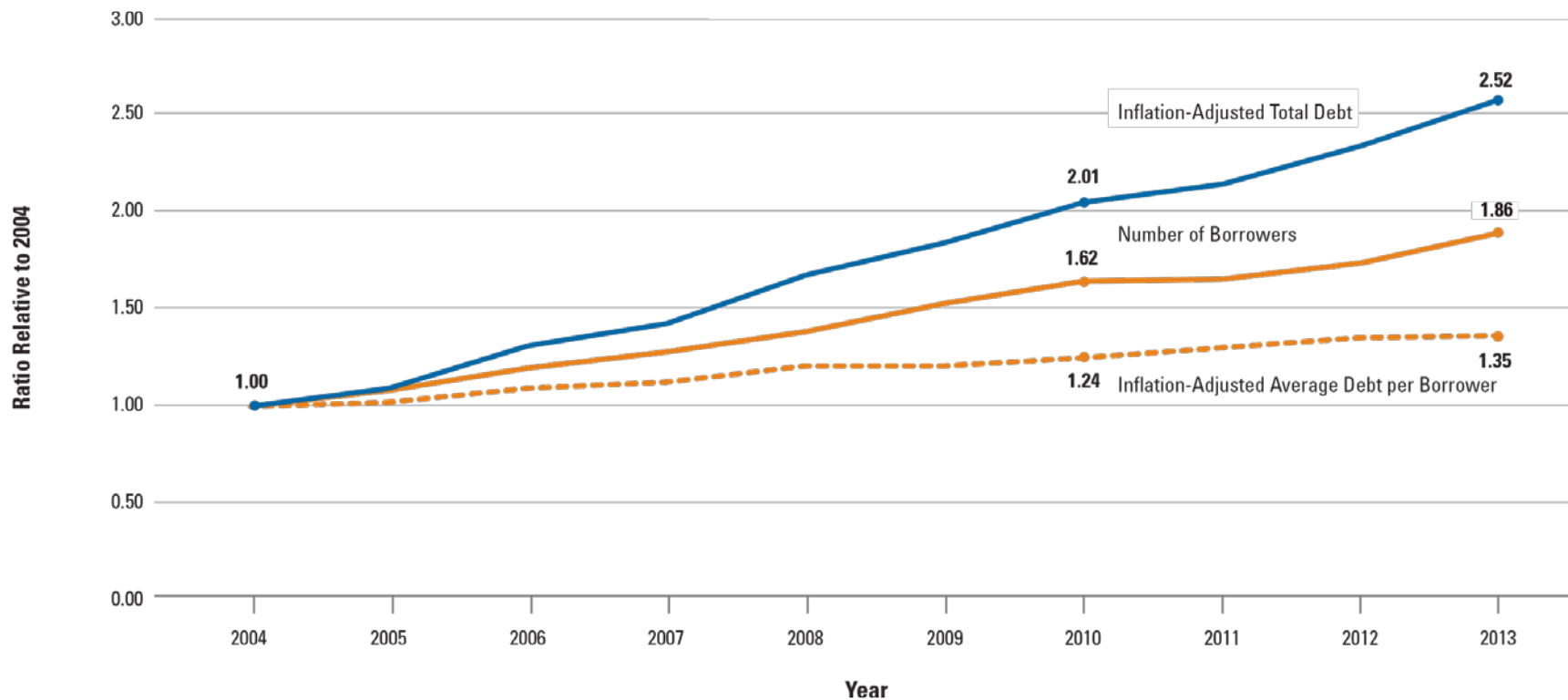
“In Georgia, higher-income youth increased their attendance relative to lower-income youth by 12.7 percentage points more than they did in the other Southeastern states”

“Roughly, then, about 80 percent of HOPE funds flow to those who would have gone to college in the absence of the subsidy.”

What are the impacts of increasing levels of student debt?

- Does debt deter students from enrolling?
- Does debt change major choice?
- Does debt change career choices?
- The nexus between prices, debt, working and college attendance.

Total Outstanding Student Debt, Number of Borrowers with Outstanding Student Debt, and Average Balance, Relative to 2004



SOURCE: The College Board, *Trends in Student Aid 2014*, Figure 18B

Does debt deter students from enrolling?

- Johnson 2013: “A tuition subsidy equal in dollar terms to the loan limit increase is much more effective at increasing enrollment and degree completion. The tuition subsidy causes a large increase in enrollment at 4-year colleges and a small increase in enrollment at 2-year colleges.”

Does debt affect major choice?

- Rothstein and Rouse, 2011 “Debt appears to have small effects on the choice of major, at most inducing a small shift toward majors that might be seen as oriented toward employment and away from “consumption”-type majors, and zero or small negative effects on academic performance.”

Does debt change career choices?

Rothstein and Rouse, 2011 “Overall, it appears that college debt affects post-graduation employment decisions: students with more debt are less likely to accept jobs in low-paying industries and accept higher-paying jobs more generally.”

The nexus between prices, debt, working and college attendance

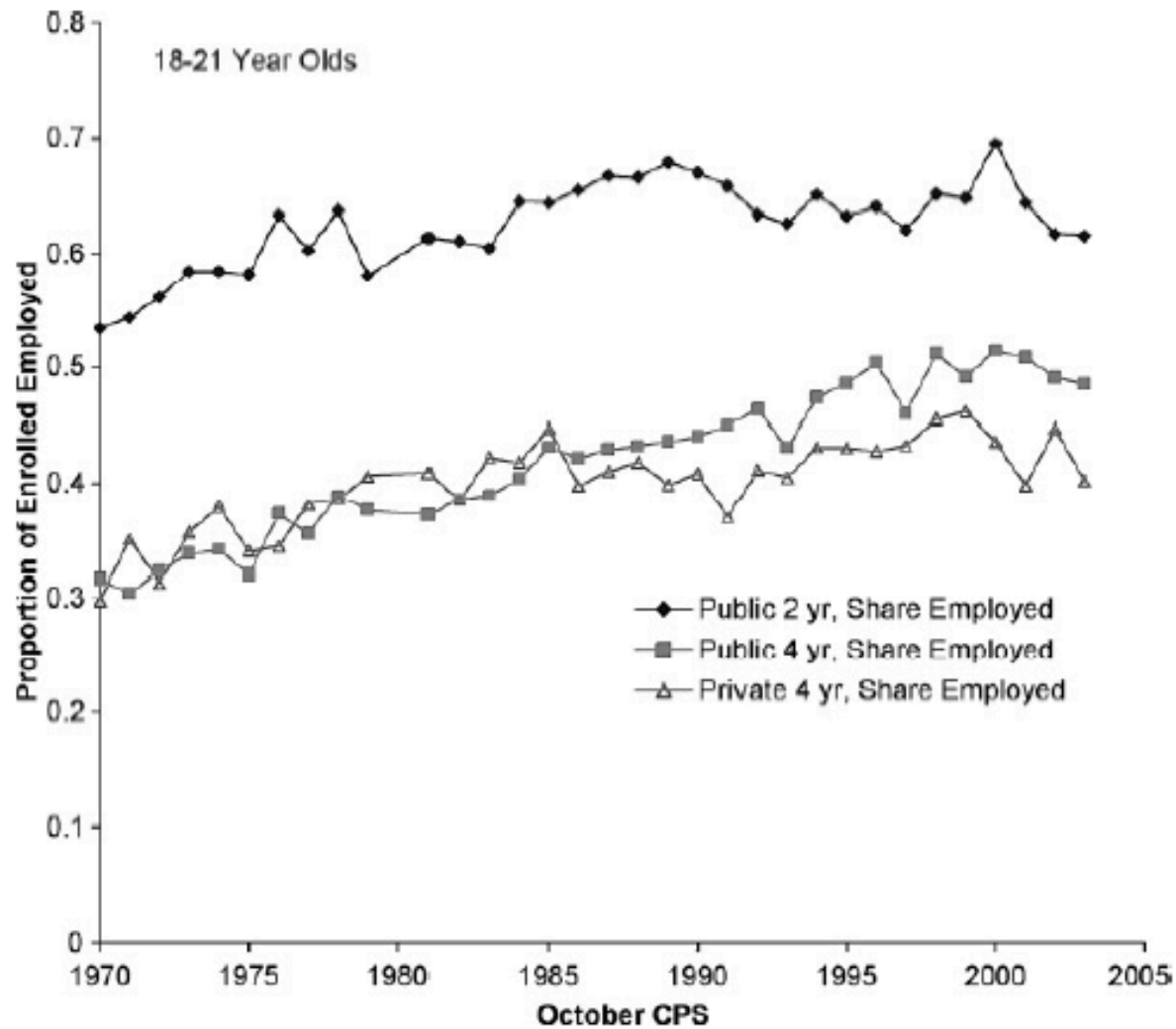


Figure 3. Employment among Those Enrolled in College by Type of Institution. Source: Data are from authors' tabulations using the October CPS. Individual weights are used.

The nexus between prices, debt, working and college attendance

DesJardins et al, 2010:

“The significant effect of the GMS scholarship on students’ working hours while in college suggests that the scholarship may alleviate borrowing constraints faced by these low-income, high-ability minority students and thus reduces the need for working to finance their college expenses.”

The nexus between prices, debt, working and college attendance

Stinebrickner and Stinebrickner, 2003:

“We find that an additional hour of work has a large and statistically negative impact on grades. More specifically, increasing the amount that a person works by 1 hour per week lowers the person’s semester grade point average by .162.”

The nexus between prices, debt, working and college attendance

Bound, Lovenheim, Turner, 2012:

“Under plausible and conservative assumptions, higher student labor supply can explain a large proportion of the observed mean time to degree increase in our data.”

What do we know about different strategies for providing aid?

- What are the implications of a low tuition strategy? What are the implications of a high-tuition, high-aid strategy?
- What are the implications of allowing institutions to set tuition and financial aid policy?

Curs and Singell, 2010: High Tuition, High Aid vs. Low Tuition Low Aid

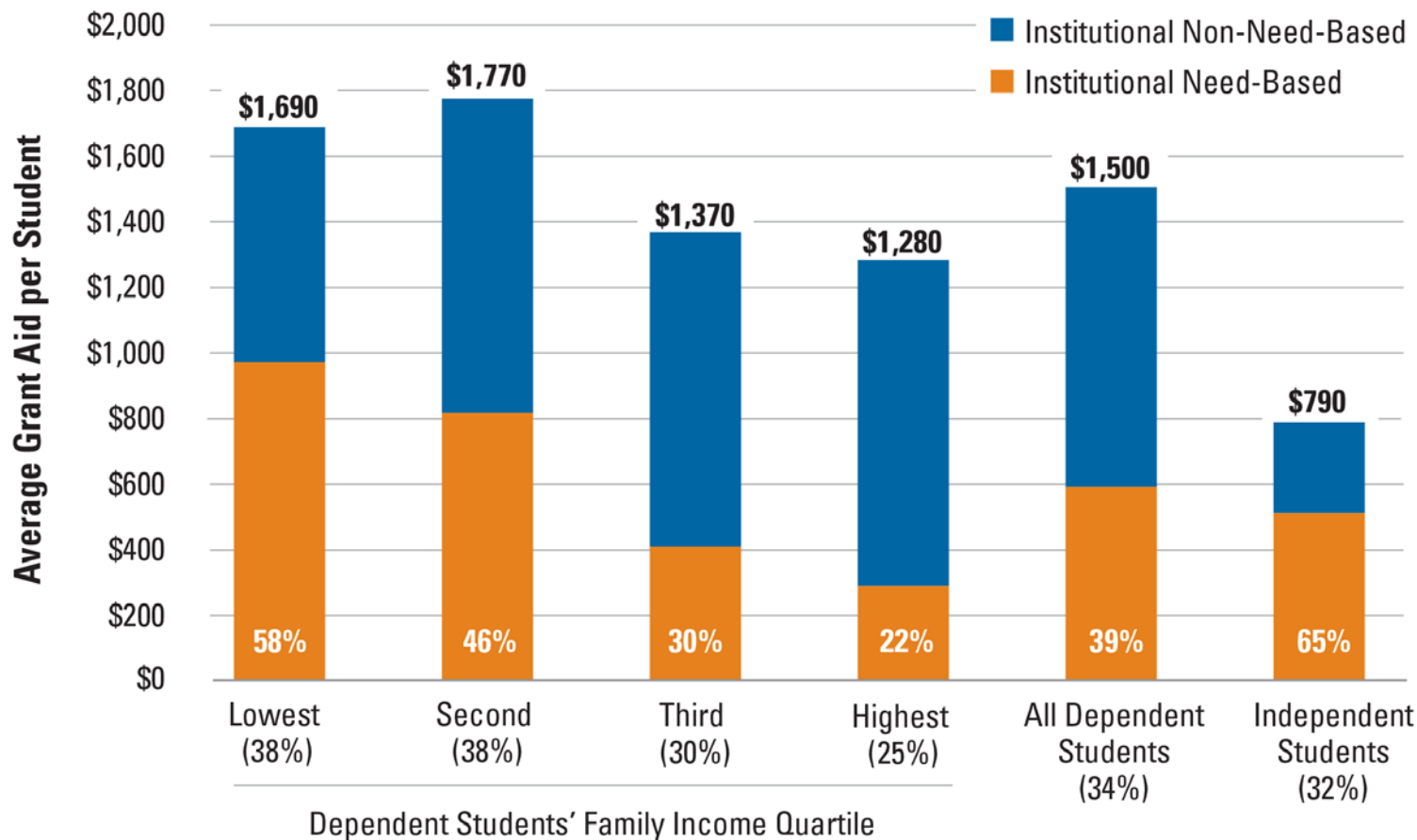
- High Tuition, high aid is expensive: for institutions to enroll the same number of students, costs expand rapidly
- Low tuition, low aid targets subsidies poorly: low income students can end up paying higher net prices. Overall, a less expensive financing structure from the perspective of the state.

Centralization and Tuition Levels

Nicholson-Crotty and Meier, 2003:

“All other things being equal, states with coordinating boards have 40% lower total costs for higher education and their tuition costs per student are 52% lower (both appropriations and scholarships appear unrelated to the distinction between coordinating boards and governing boards). These are substantively large differences that indicate coordinating boards are associated with providing relatively inexpensive education.”

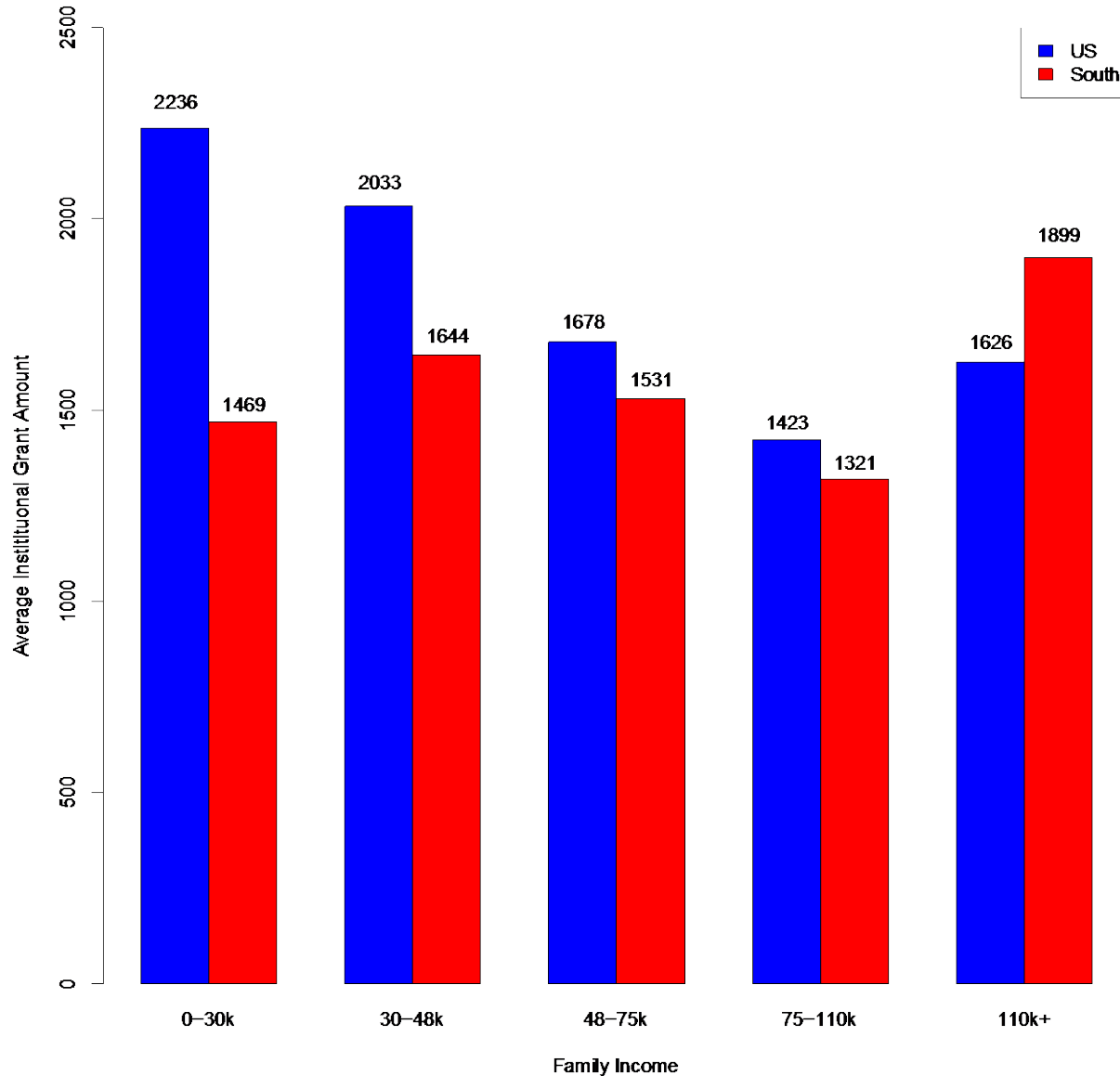
Institutional Grant Aid by Dependency Status and Family Income at Public Four-Year Institutions, 2011-12



Dependency Status and Quartiles of Dependent Students' Family Income (Percentage Receiving Institutional Grant Aid)

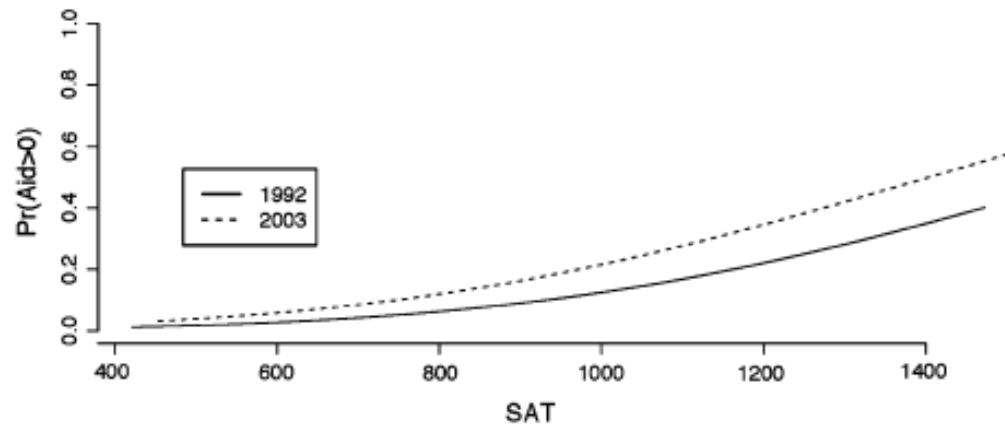
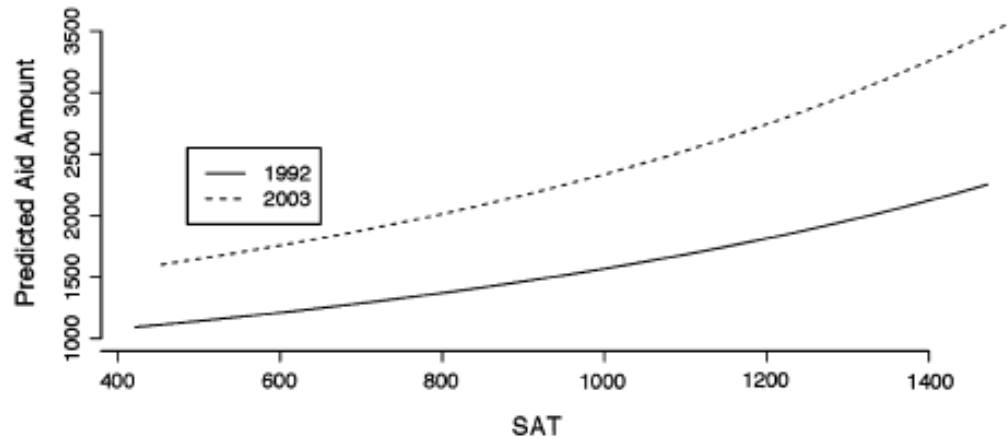
SOURCE: The College Board, *Trends in Student Aid 2014*, Figure 29A

Institutional Grant Amount by Income



Note: Amounts are for full-time, dependent students attending public four-year Carnegie master's institutions. Source: National Postsecondary Student Aid Survey, 2011

Doyle, 2010: Aid Receipt by SAT Scores



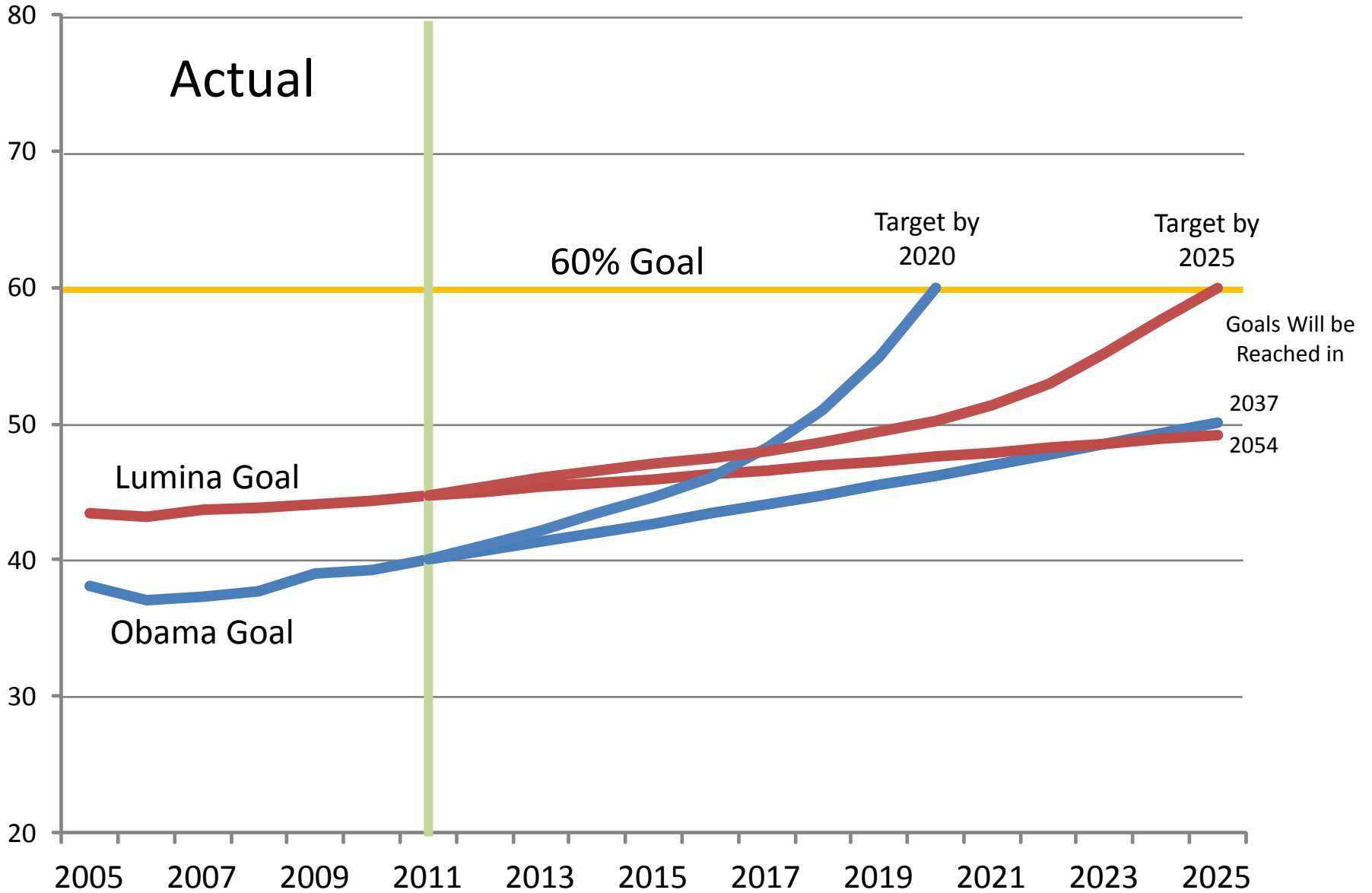
Can attainment goals be reached
without increasing access?

Wide Variation in Goals

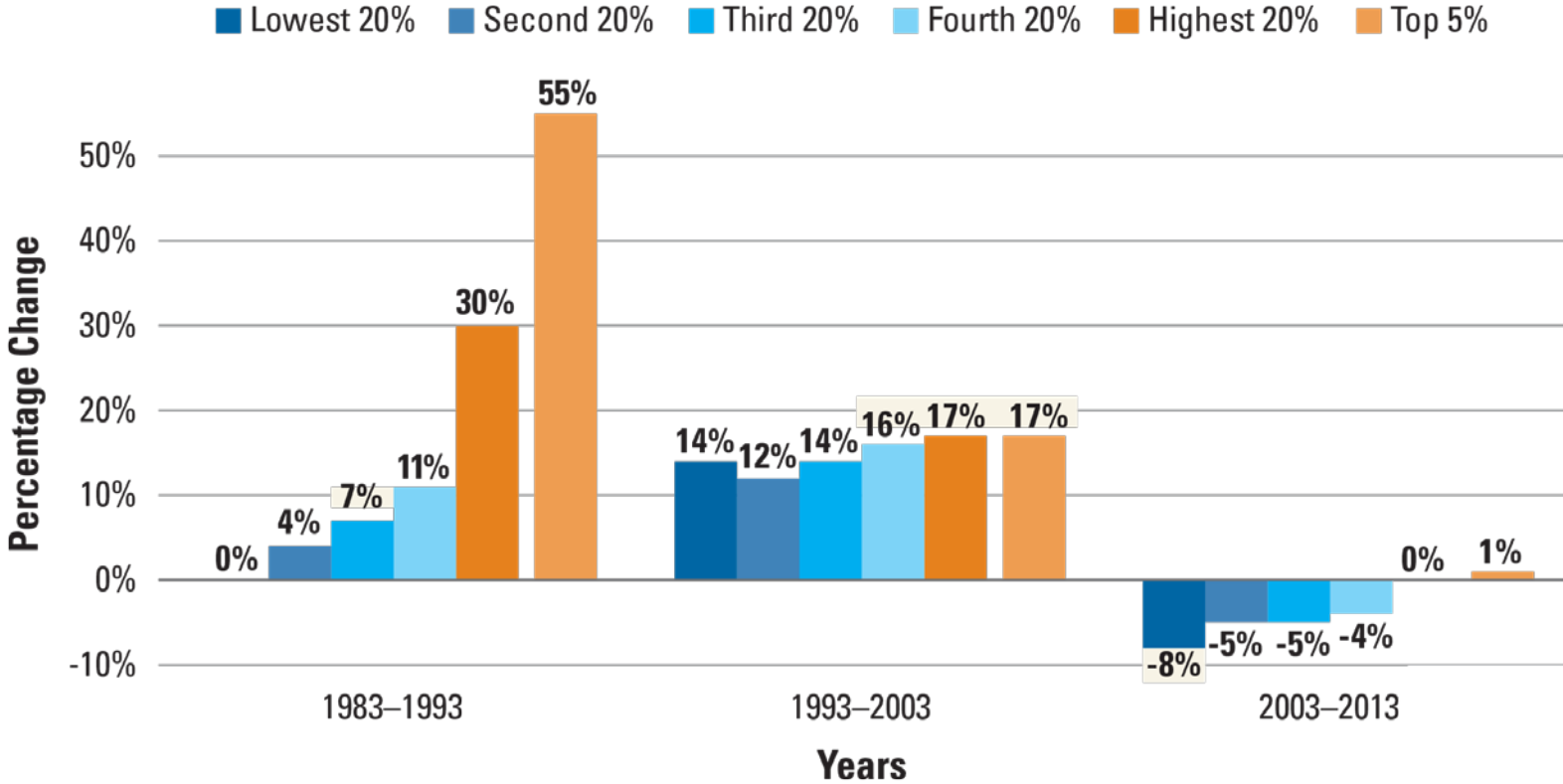
| State | Target | Population | Year |
|---------------|----------------------------|------------|------|
| Arkansas | 4.73% annual at each inst. | 25-64 | 2025 |
| Colorado | 66% | 25-34 | 2025 |
| Delaware | 60% | 25-64 | 2018 |
| Georgia | 60% | 25-64 | 2025 |
| Hawaii | 55% | 25-64 | 2025 |
| Idaho | 60% | 25-34 | 2020 |
| Illinois | 60% | 25-64 | 2025 |
| Indiana | 60% | 25-64 | 2025 |
| Kansas | 60% | 25-64 | 2020 |
| Kentucky | 37% | 25-44 | 2015 |
| Louisiana | 42% | 25-64 | 2025 |
| Maryland | 55% | 25-64 | 2025 |
| Massachusetts | 60% | 25-34 | 2020 |

| State | Target | Population | Year |
|-------------|--------|------------|------|
| Mississippi | 55% | 25-64 | 2025 |
| Missouri | 60% | 25-64 | 2025 |
| Montana | 60% | 25-64 | 2025 |
| Nevada | 60% | 25-64 | 2020 |
| Ohio | 60% | 25-64 | 2025 |
| Oklahoma | 67% | 25-64 | 2023 |
| Oregon | 80% | 25-64 | 2025 |
| Tennessee | 55% | 25-64 | 2025 |
| Utah | 66% | 25-64 | 2020 |
| Vermont | 60% | 25-64 | 2020 |
| Virginia | 55% | 25-64 | 2025 |
| Washington | 70% | 25-45 | 2023 |
| Wyoming | 50% | 25-64 | 2022 |

Progress Toward the Goals



Percentage Change in Inflation-Adjusted Mean Family Income by Quintile, 1983–1993, 1993–2003, and 2003–2013



SOURCE: The College Board, *Trends in College Pricing 2014*, Figure 22A

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