

# A Longitudinal Analysis of Student Fees: The Roles of States and Institutions

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# Why study student fees?

- Most attention about the cost of college focuses on tuition
- But required student fees are substantial and growing
- Ex: UC-Santa Cruz has over 30 fees totaling over \$2,000, including “seismic safety” and “community and resource empowerment”
- Median real fees increased by 117% at community colleges, 81% at four-year public colleges, and 61% at four-year private colleges since 1999
- Fees now add 20% to the cost of tuition at the average public university

# Contributing factors

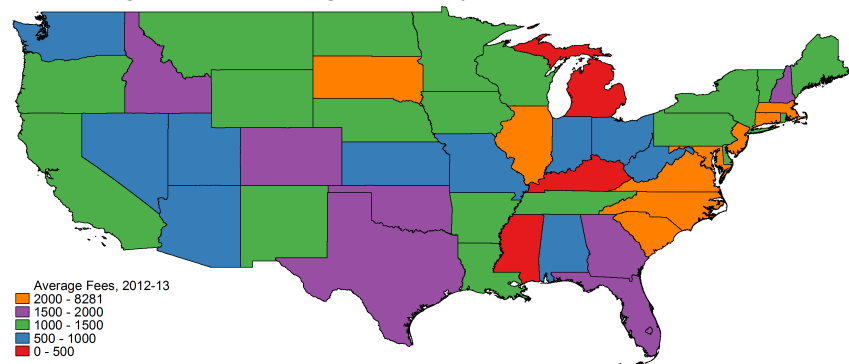
- One factor behind increased fees may be **institutional behaviors**
- Many colleges are engaged in an “arms race” for the best facilities (Armstrong & Hamilton, 2013)
- This spending can help attract high-income, lower-achieving students (Jacob, McCall, & Stange, 2013)
- Athletics can be a major driver of fees (Weisbrod, Ballou, & Asch, 2008)
- Fees can also be used to directly fund instruction or libraries

# Contributing factors

- Another contributing factor behind increased fees at public colleges may be **state behaviors**
- Grant programs in some states (such as MA and GA) do not cover fees (Goodman & Cohodes, forthcoming; Sielke, 2011)
- Organizational structure of public higher education can matter (e.g., Lowry, 2001; Tandberg, 2013)
- State-level political control affects appropriations, which could affect fees (e.g., Archibald & Feldman, 2006; Tandberg, 2010)

# Average fees by state

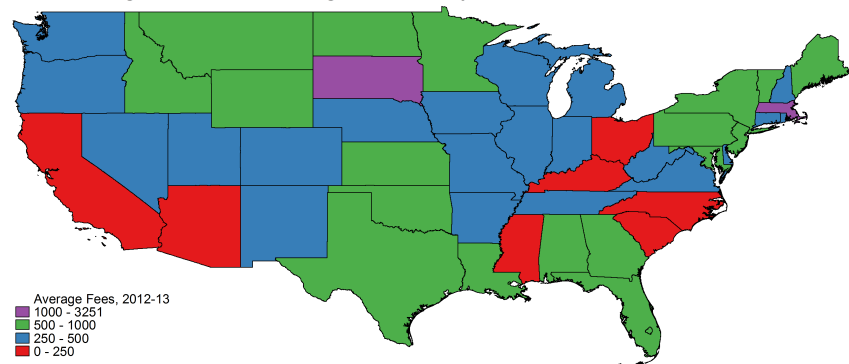
Figure 1a: Average Fees by State, 4-Year Publics



Source: IPEDS

# Average fees by state

Figure 1b: Average Fees by State, 2-Year Publics



Source: IPEDS

- 1 What are the trends in inflation-adjusted student fees since 1999? How do they vary by institutional control and sector?
- 2 Are changes in student fees at public institutions affected by state-level factors including:
  - The size and scope of state merit- and need-based grants?
  - The authority of the institution, state coordinating/governing boards, and elected officials to control tuition and/or fees?
  - State-level partisan political control?
- 3 Are changes in student fees affected by institutional-level factors, including the magnitude of the athletics program and selectivity?



- IPEDS: Tuition and fees from 1999-2000 through 2012-13, selectivity, athletics participation, state appropriations
- Annual NASSGAP surveys on state need- and merit-based aid programs through 2011-12
- Combine with Census Bureau data to get state aid per 18-24 year old
- All measures adjusted for inflation into 2012\$
- Partisan political balance by year from Carl Klarner at Indiana State

- SHEEO surveys on state-level tuition policies
  - Conducted in 1998-99, 2002-03, 2005-06, 2010-11, and 2012-13
  - Most recent year of data used, some states missed a wave
  - Typically only one response per state from a system
- Key questions:
  - Whether governor/legislature, coordinating board, or campus has primary authority over tuition
  - Whether tuition and/or fee cap has been implemented in past three years
  - Whether governor/legislature, coordinating board, or governing board has any authority over fees

# Sample selection

- Started with Title IV-participating nonprofit colleges with tuition and fee data available from 2010-12
- Excluded for-profit institutions and two-year privates
- Analytic concern: 170 colleges “reset” fees by dropping fees \$500+ while raising tuition \$500+
- Dropped years prior to fee reset, but also had to drop Cal State system and others (n=63)
- Final sample: 2,415 colleges enrolling about 15 million undergrads in 2011-12
- Primary analyses exclude Massachusetts as an outlier

- Descriptive analyses of trends in fees over time
- Mixed effects panel regressions from 1999-2000 through 2011-12
- Model for public institution  $j$  in year (2-yr and 4-yr separate):

$$\begin{aligned} \text{Fee}_{jt} = & \beta_{0jt} + \beta_{1jt} \text{Carn}_{jt} + \beta_{2jt} \text{TFPol}_{jt} + \beta_{3jt} \text{Grant}_{jt} + \\ & \beta_{4jt} \text{Party}_{jt} + \beta_{5jt} \text{Ath}_{jt} + \text{State} + u_j + e_{jt} \end{aligned} \quad (1)$$

- 2-year model does not control for athletics

- Also estimated a model looking solely at institutional characteristics for four-year public and private colleges:

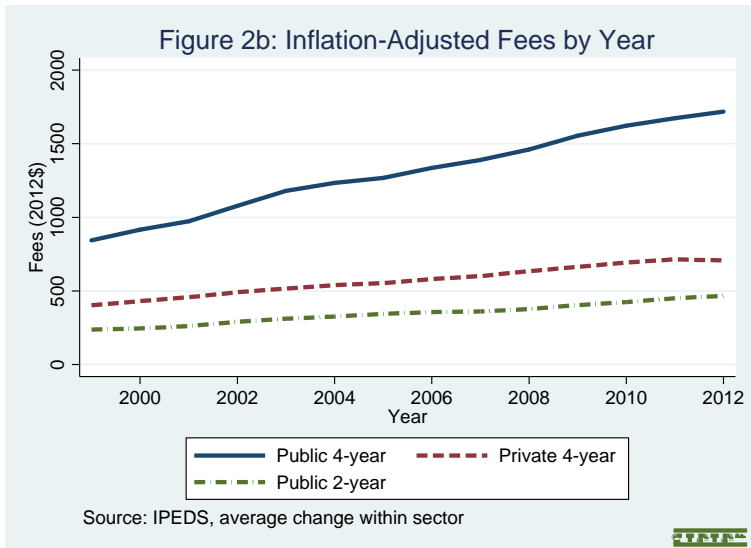
$$Fee_{jt} = \alpha_{0jt} + \alpha_{1jt}Carn_{jt} + \alpha_{2jt}Select_{jt} + \alpha_{3jt}Ath_{jt} + u_j + e_{jt} \quad (2)$$

- Selectivity measure available 2001 and 2003-11, so 10 years of data instead of 13
- Future work: Include a measure of regional competition

# Limitations

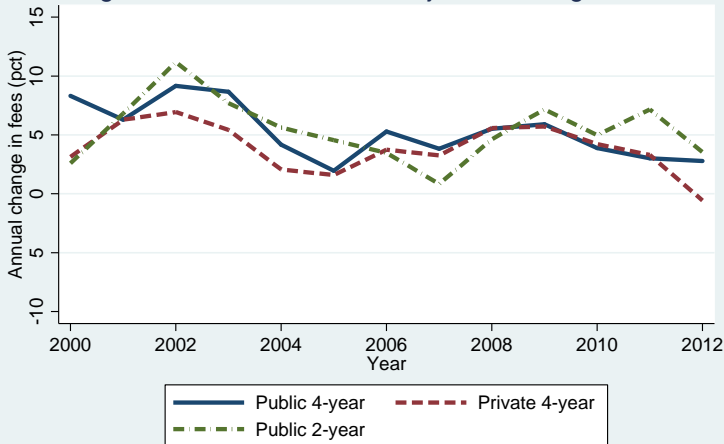
- Key measures aggregated to state level and not available each year
- IPEDS limited—variable for being part of a system first available in 2006 and is of poor quality
- Variables such as percent Pell are not available for the full panel
- Some colleges “reset” fees

# Trends in fees by sector and year



# Trends in fees by sector and year

Figure 3b: Annual Inflation-Adjusted Change in Fees



Source: IPEDS, average change within sector





# Key factors associated with fees (4-yr public)

- Tuition cap in last 3 years (\$45,  $p < .01$ )
- Fee cap in last 3 years (-\$47,  $p < .01$ )
- Fee authority: Coordinating board (\$56,  $p < .01$ )
- State aid/resident age 18-24 (\$1.90,  $p < .01$ )
- Pct aid based on need (\$6.15,  $p < .01$ )
- GOP governor and Senate (-\$128 and -\$102,  $p < .01$ )
- NCAA FBS and FCS athletics (\$256 and \$184,  $p < .01$ )

# Key factors associated with fees (2-yr public)

- Fee cap in last 3 years (\$10,  $p < .05$ )
- Fee authority: Gov/leg (\$16,  $p < .01$ )
- Fee authority: Coordinating board (\$38,  $p < .01$ )
- State aid/resident age 18-24 (\$0.39,  $p < .01$ )
- Pct aid based on need (\$1.93,  $p < .01$ )
- GOP governor and Senate (-\$28 and -\$18,  $p < .01$ )

# Results of 4-yr institutional-level regressions

- NCAA Division I athletics not significantly associated with fees (compared to D-III)
- ACT composite matters for publics (\$30 per point,  $p < .01$ , but not privates)
- 1 pct drop in acceptance rate raises fees by \$4.49 at publics and \$3.27 at privates ( $p < .01$ )
- 1 pct drop in yield rate raises fees by \$8.95 at publics and \$3.66 at privates ( $p < .01$ )
- I view these results as very preliminary

# Conclusion

- State-level and institutional-level characteristics affect student fees
- Fee caps appear to be somewhat effective, but colleges tend to raise tuition
- Giving legislature fee-setting authority results in more fees
- State grant funding related to higher fees
- GOP political control associated with lower fees
- Athletics may be driving some fee increases in models with state characteristics

- Add in measure of state and local appropriations from IPEDS
- Create a measure of whether a public college is part of a system
- Estimate institutional competition based on the number of selective colleges nearby
- Any other suggestions?