Labor Market Strength and Declining Community College Enrollment

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Motivation

- Community colleges (public 2-year colleges) are open enrollment institutions that provide much of the postsecondary workforce education in the U.S., particularly for low-income students.
  - Students enroll to earn Associate's degrees (AAs) and short-term certificates, often in career-oriented programs.
  - Some enroll to then transfer to BA-granting institutions (four-year colleges).

- In policy circles, there is much concern about the health of the community college sector.
  - Many discussions of declining enrollments, associated financial risk, etc.
  - Often starts with, "Since 2010…"
  - Given post-Great Recession recovery, does this need a policy response?

- Separately, there's been much hand-wringing about declining college enrollments in the U.S.
  - Fears that Americans increasingly see college degrees as not worth the investment.
  - Often tied to concerns about the steep costs of four-year colleges.

Our paper

- Combine institution-level data from last 30 years with local labor market conditions.
- Descriptive
  - Highlight that enrollment declines have little to do with four-year sector.
  - Some of community college decline is due to primarily administrative re-classification of institutions.
- Causal
  - Estimate impact of local labor market strength on college enrollment (Betts & McFarland, 1995; Hillman & Orians, 2013).
  - Apply estimates to post-Great Recession period.
  - Conclude over half of post-2010 decline in first-time community college enrollment through 2019 is explained by strengthening labor markets. (Schanzenbach, Turner, & Turner, 2023 → minimum wage)
  - Suggestive evidence that marginal students were not degree completers.

Data

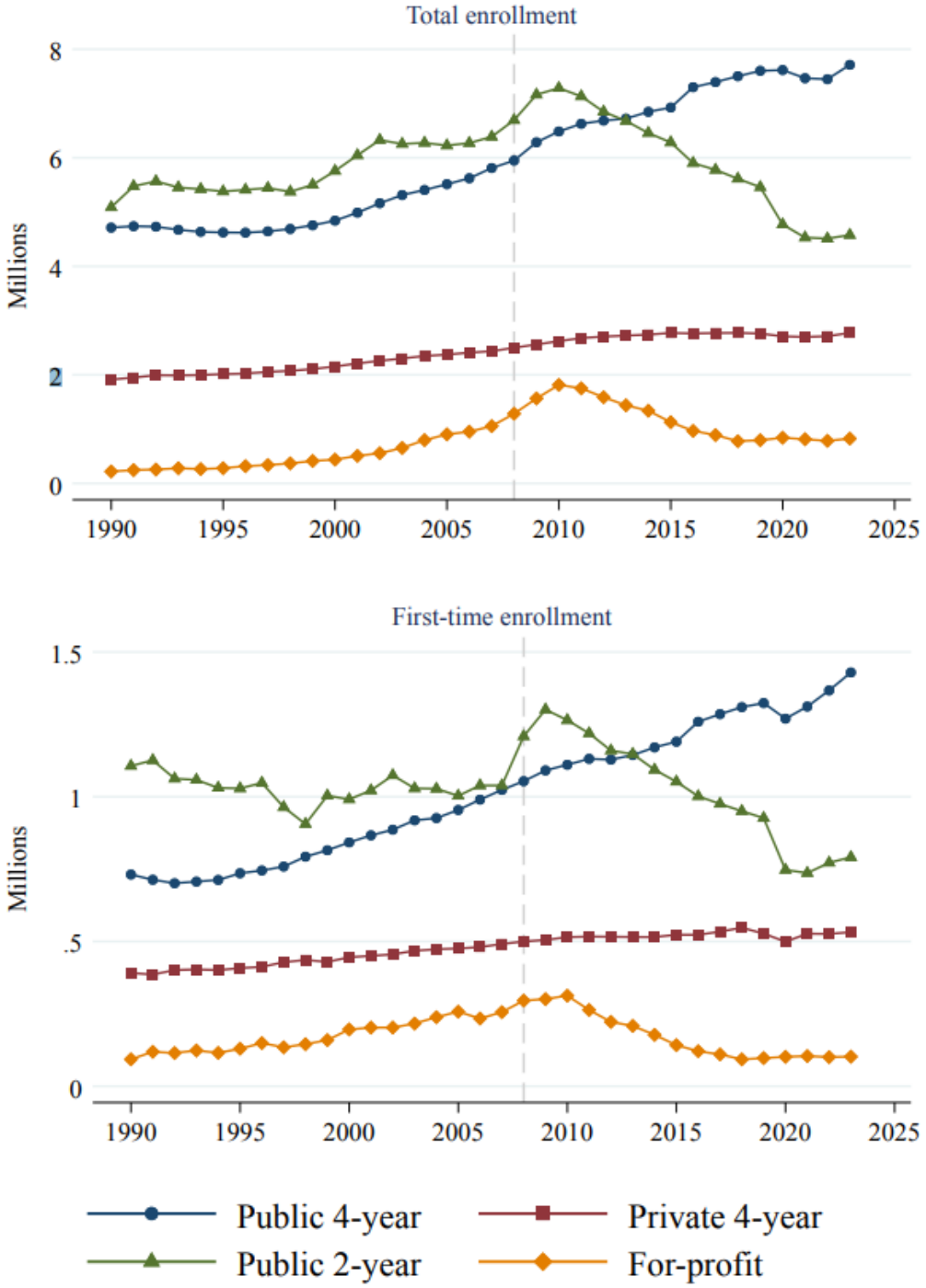
- Undergraduate fall enrollment
  - Institution-level data from IPEDS
  - 1990-2023
- Labor market strength
  - Local unemployment rate
  - Annual county-level unemployment rate from BLS' Local Area Unemployment Statistics
- Population
  - Account for population growth given outcome is total enrollment, not enrollment rate
  - Use annual county-level population estimates from NIH's SEER
  - Number of 15-34 year-olds (90% of community college students are <35)

Motivating descriptive facts

Enrollment trends by sector

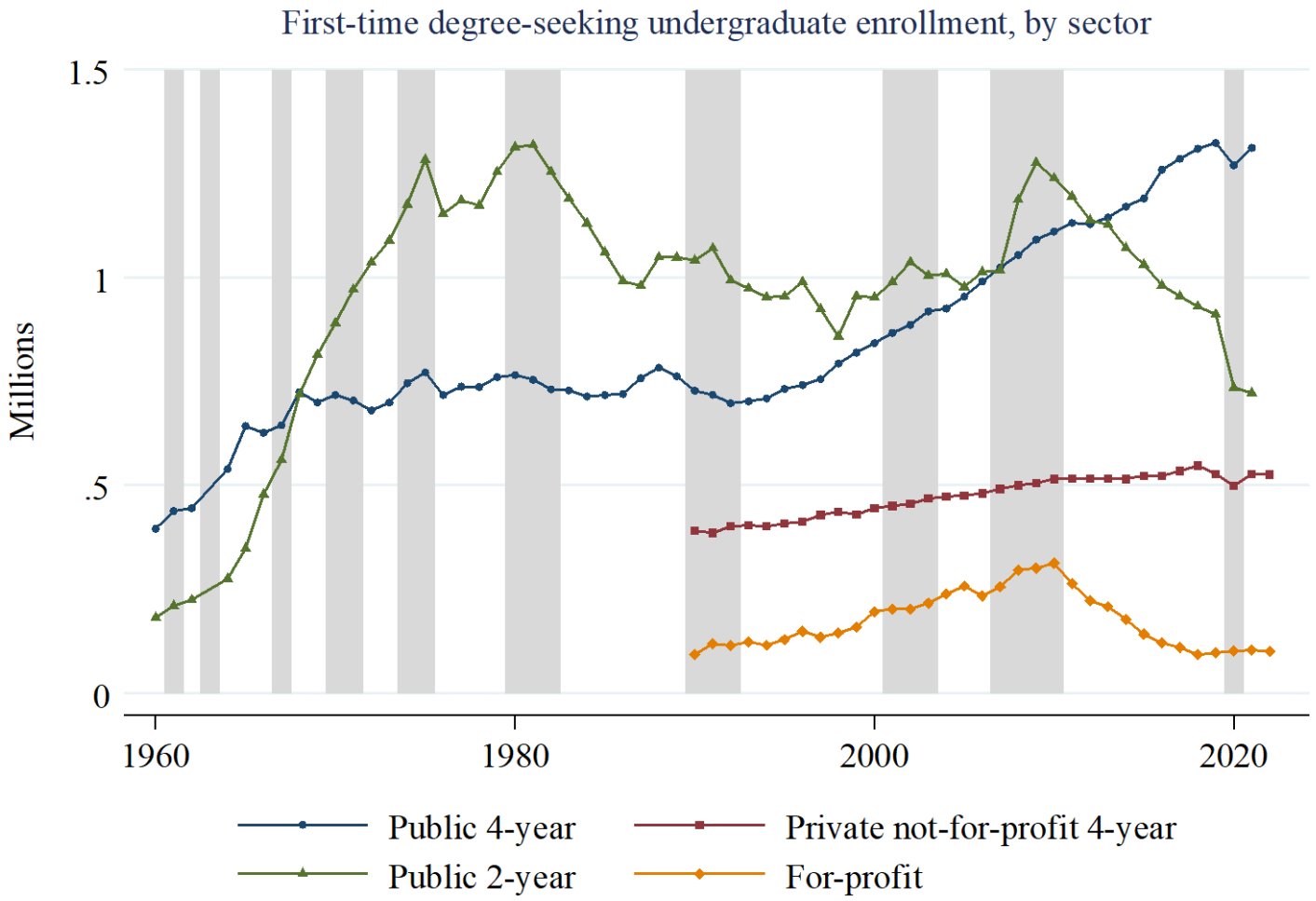
- Striking drop in community college enrollment of about 2 million students (~25%) since 2010.
- For-profit college enrollment has also dropped, by about 1 million students (~50%).
- These trends are driven by changes in first-time enrollment rather than changes in retention rates, which have remained stable.

[Gray line → 2008 start of Great Recession.]



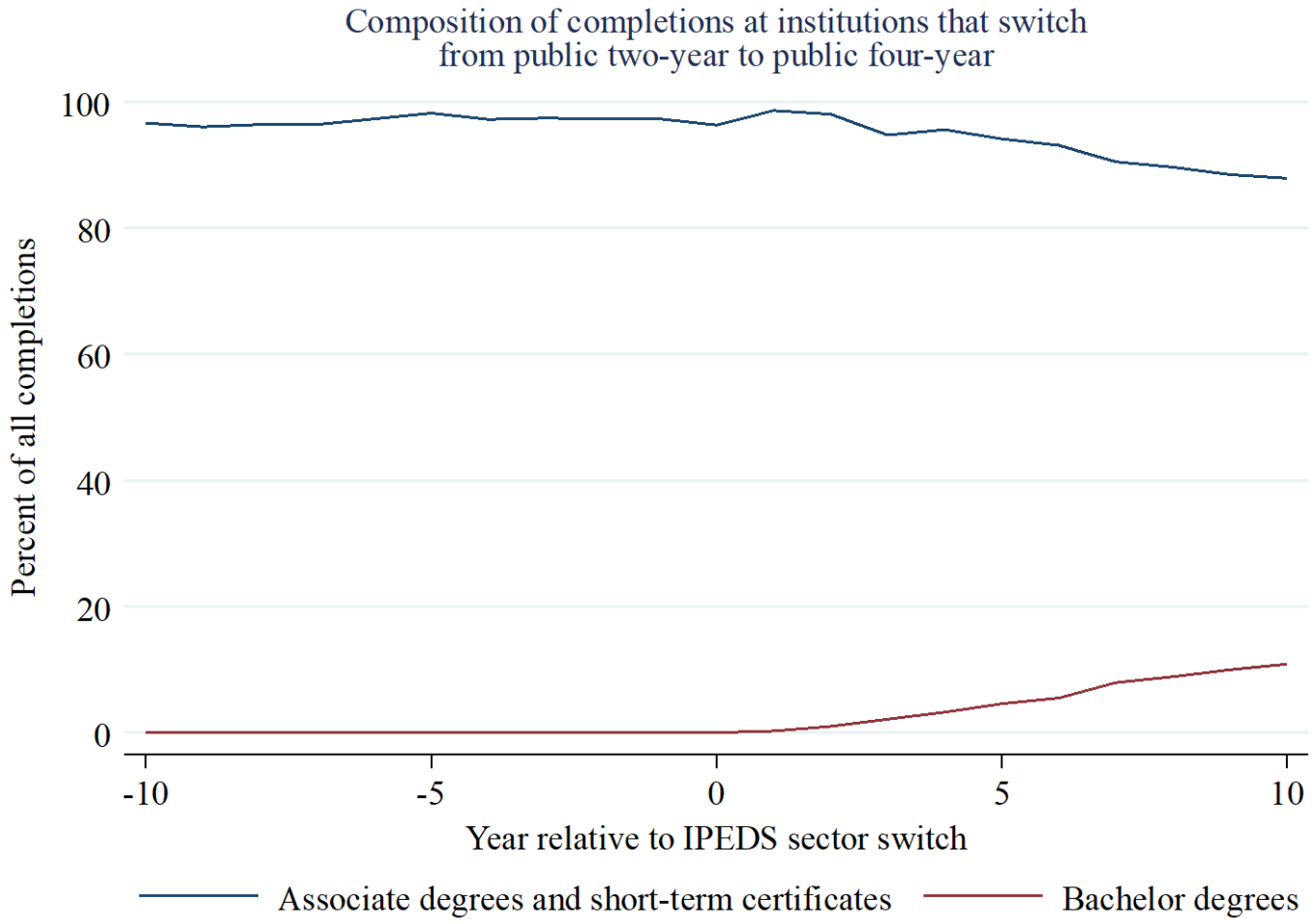
The business cycle

- Time series suggest relation between macro conditions and community college enrollment.
- **First-time community college enrollment peaks during increasing unemployment** (gray bars), in contrast to four-year sectors.
- Community colleges absorb excess labor supply, provide training when opportunity costs are low.
- We want to understand magnitude of this relationship.



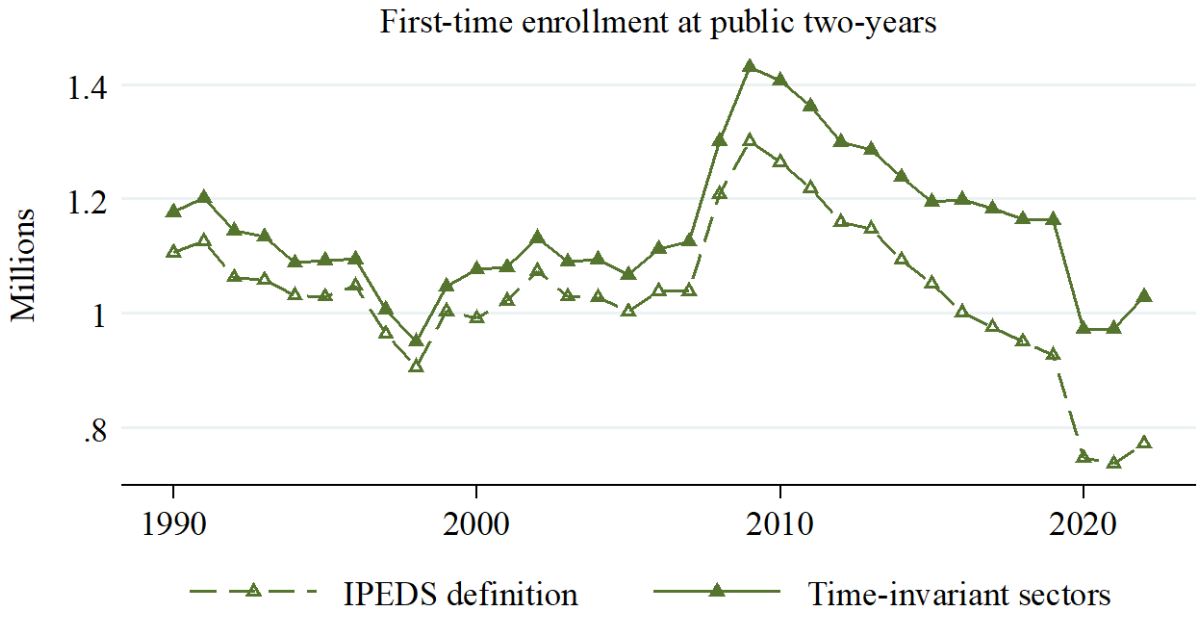
IPEDS sector definitions

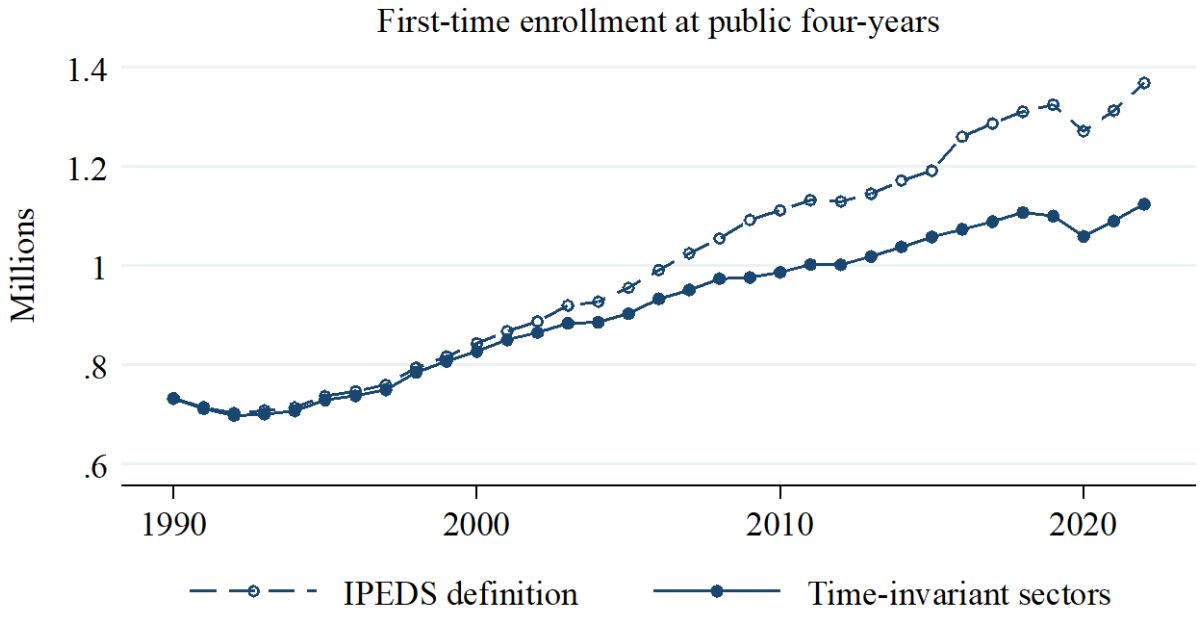
- IPEDS sector re-classifications are not uncommon: 5.5% of 2010 institutions changed sector by 2022.
- The most common re-classification is from public 2-year to 4-year.
- These sector re-classifications don't change most types of enrollment or completions at that institution.
- 10 years after re-classification, 90% of completions are still AAs/certificates.



Preferred sector definitions

- Because we are interested in trends by types of enrollment demand, we hold fixed community college status over our analysis period.
- Makes no sense to count all these AA-seeking students in the 4-year sector, so our definition fixes that.
- A non-trivial piece of the reported decline in community college enrollments has nothing to do with students opting out of certain degrees/institutions.





Determinants of enrollment trends

Empirical approach – Enrollment vs. unemployment

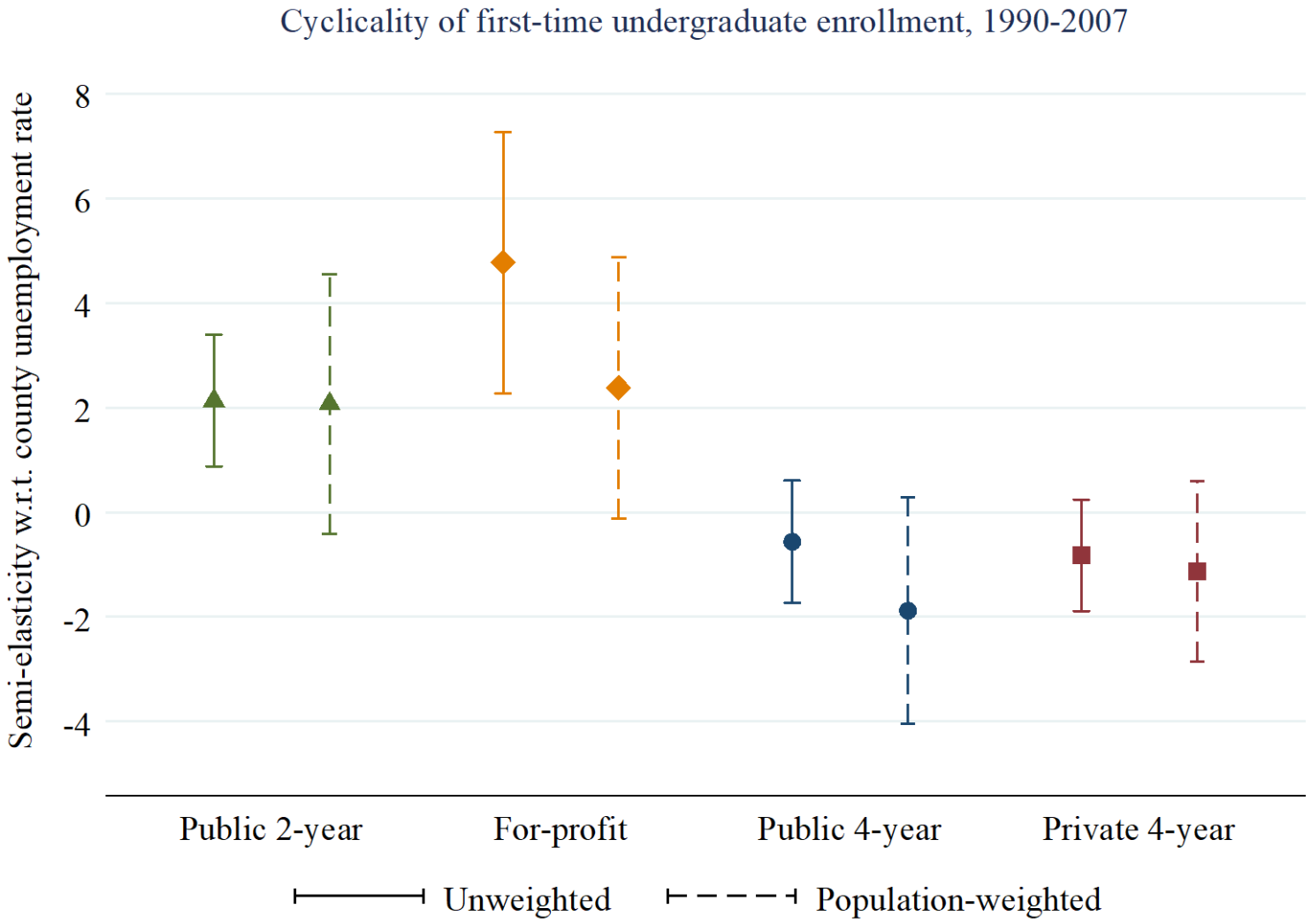
- We estimate semi-elasticity of college enrollment with respect to the local unemployment rate. (and to the local population of college-age residents).
- Our regression models look like:

$$\ln(Y_{ct}) = \beta_1 U_{ct} + \beta_2 \ln(P_{ct}) + \eta_c + \delta_t + \varepsilon_{ct}$$

- We ask: How is college enrollment Y in county *c* and year *t* related to the unemployment rate and population of 15-34 year-olds in that county and year?
- County and year fixed effects → We compare counties to themselves over time, controlling for annual nation-level shocks.
- Estimates driven by (plausibly exogenous) variation in county-specific conditions.

Enrollment vs. U rate

- **1 pp rise in unemployment rate increases enrollment by**
  - **2% for community colleges**
  - 2-5% for for-profit colleges
- Magnitude of countercyclicality is relatively insensitive to time period used (full vs. pre-Great Recession).
- No clear gender/race heterogeneity.
- Four-year enrollment is, if anything, slightly procyclical



Empirical approach – Predicting the future

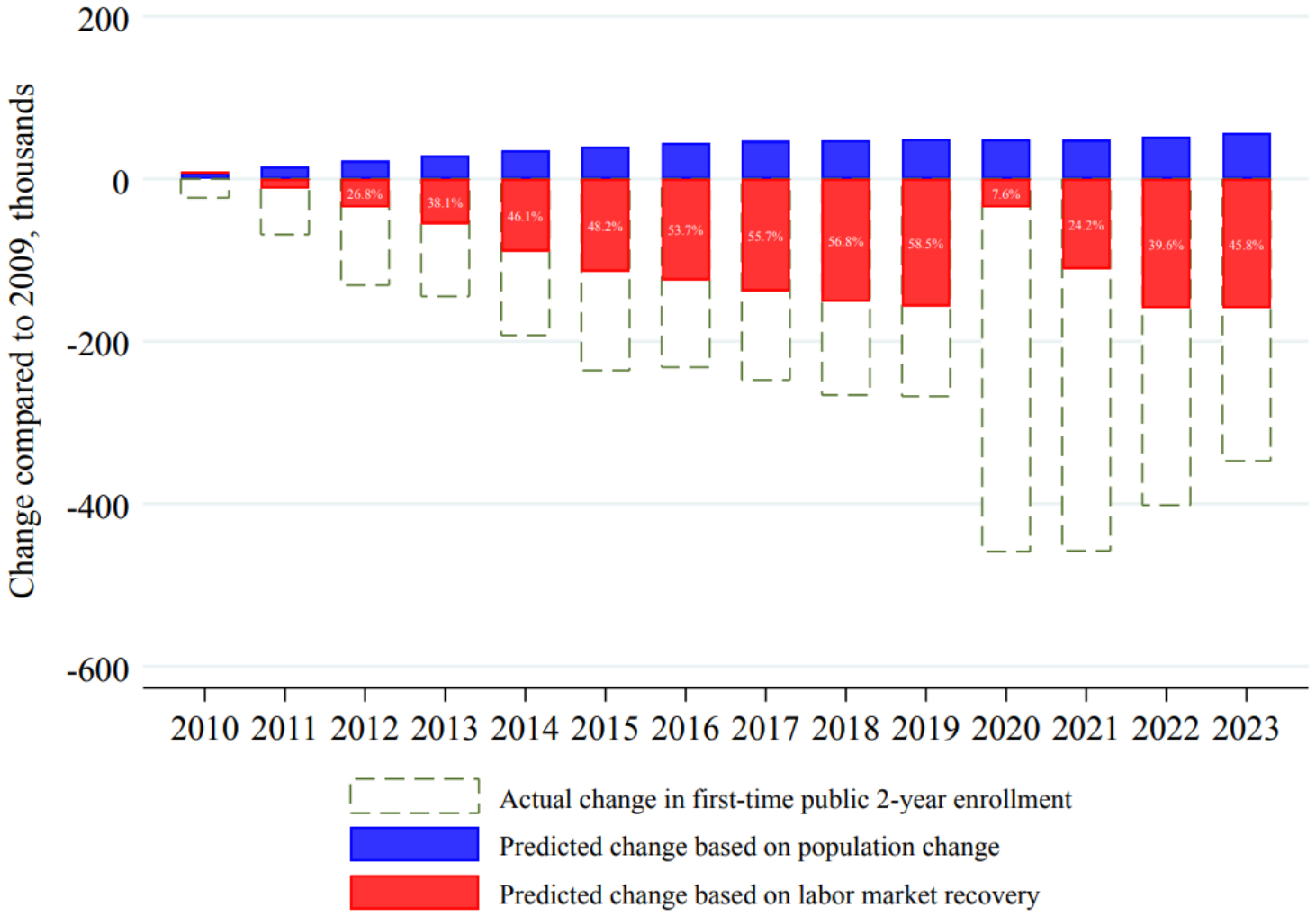
- We ask: What fraction of post-Great Recession enrollment declines are explained by changing labor market strength (and population)?
- Use the semi-elasticities estimated from pre-Great Recession data (1990-2007).
- For any given post-2009 year, we estimate the national change in first-time community college enrollment we would expect given changes in labor market strength via:

$$\ln \hat{Y}_t^{UR} - \ln Y_{2009} = \hat{\beta}_1 (U_t - U_{2009})$$

- We can do the same estimation to account for effects of population change.

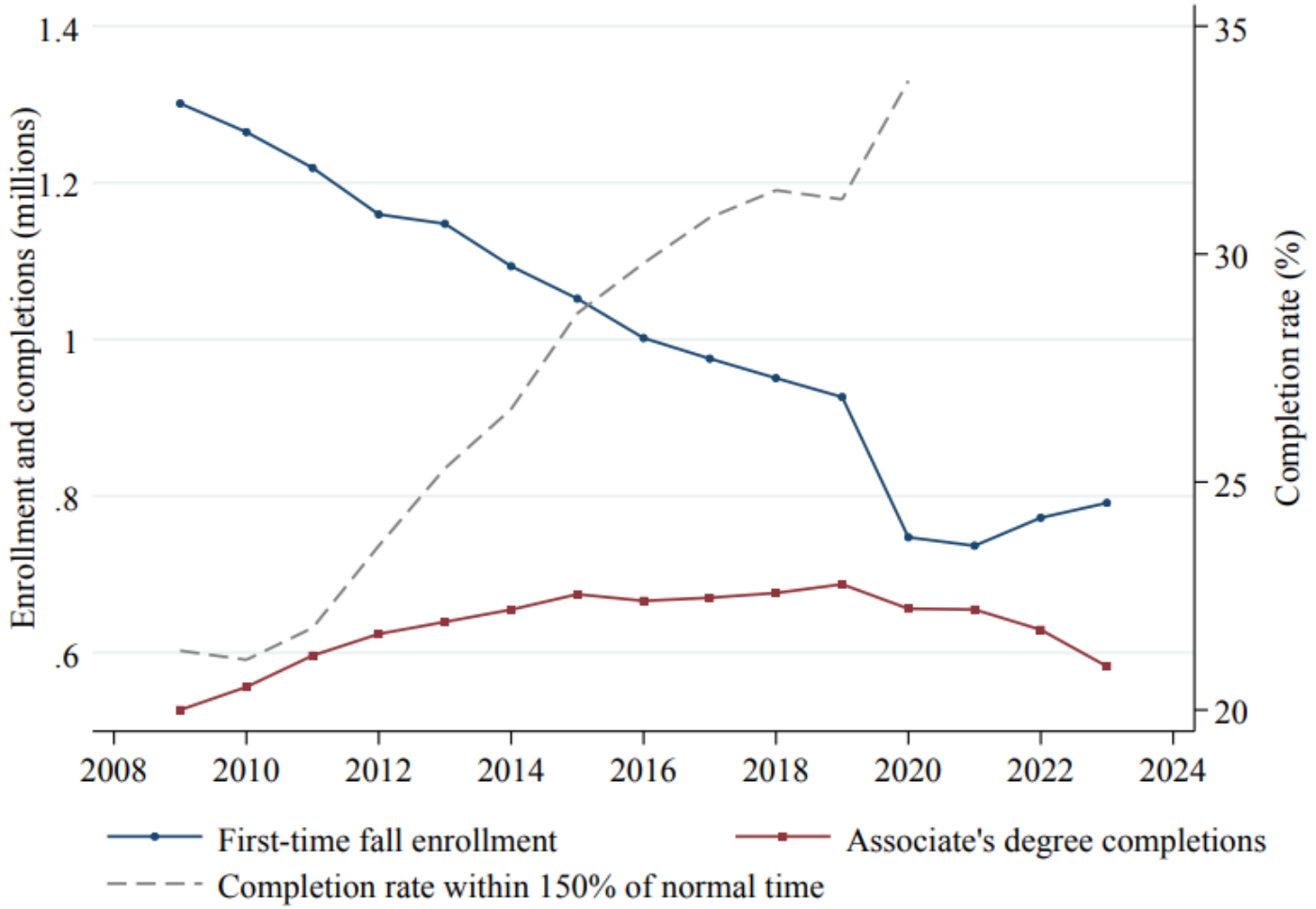
Explaining CC declines

- Dashed bars are actual post-2009 decline in first-time community college enrollments.
- Red bars = predicted change given changes in labor market strength.
- Blue bars = predicted change given changes in population.
- **In 2019, over half (60%) of post-2009 decline in community college enrollment is explained by strengthening labor market.**



The marginal student

- IPEDS reports that, post-GR:
  - First-time community college enrollment fell substantially;
  - Annual A.A. completions rose;
  - Average degree completion rates at CCs rose substantially (from 21% to 31%)
- **Consistent with marginal student being unlikely to complete degree.**
- **Missing enrollments ≠ missing degrees.**



Conclusion

- Key results:
  - Strong labor markets explain 60% of 2010s decline in first-time community college enrollment.
  - Marginal students were not degree completers.
- Stepping back:
  - Declining college enrollment is largely a community college story, not a story of Americans losing faith in value of 4-year colleges.
  - Decline in community college enrollment is a challenge for institutions but also a sign of good job opportunities for those on the margin between work and study.
  - Doesn't mean we shouldn't think about how to strengthen community colleges for the role they play in both strong and weak economic times.

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