## Financial Crisis and Faculty Labor Markets

## Sarah E. Turner University of Virginia and NBER

## Motivating observations:

1. Overall, demand for higher education is strongly countercyclical (rising with the financial crisis); the enrollment response to the financial crisis is particularly concentrated at community colleges and open-access four-year institutions. [See Figure 1.]

2. For private liberal arts colleges and research universities that draw substantially on endowment income, the financial crisis produced a short – though significant – shock to revenues and, in turn, hiring. [See Figure 2 showing endowment returns.]

3. For public universities, the effects of the financial crisis are longer-lasting, with appropriations in many states continuing downward to 2012; as a result, the impact on hiring is persistent. [See Figure 3 which presents state appropriations data.]

4. In many dimensions, it is "too early" to measure the full effects of the financial crisis on faculty labor markets and, in turn, on the outputs of higher education including student attainment and research productivity. Not only do faculty labor markets clear slowly (with time measured in years not months), but data are released far too slowly to present a full picture which includes academic years 2010-11 and 2011-12. What is more, institutional aggregate measures available through IPEDS and AAUP are insufficient to trace out salient dynamics in faculty labor markets.

## Hypotheses and Points of Discussion:

<u>1. Resources per student</u>: Student-faculty ratios have risen notably since 2008. This rise in student-faculty ratios is concentrated in the public sector. While it is natural to expect that permanent staffing would not adjust to transitory changes in student demand (particularly in the open access sector), there is evidence that hiring does not meet replacement demand in public research universities. A central question that cannot be answered in this research is how changes in resources per student impact student attainment.

<u>2. Stratification</u>: The Great Recession has further widened differences between public and private universities in faculty staffing and, to some degree, salaries. In addition to the growing divergence between public and private institutions, differences among institutions within the private sector have also widened, as tuition-dependent private institutions face significant faculty staffing challenges. [See Figure 4]

<u>3. Senior Hires and Mobility</u>: A) "Concentration of talent" increases as well-resourced universities, particularly in the private sector, hire "superstars" and top young talent from lesser ranked institutions. The result is an increase in stratification that is greater than what is measured by simple headcount numbers. B) "Returns to mobility": Conditional on research productivity, faculty who are able to credibly generate outside offers benefit disproportionately in environments with nominal "salary freezes" or limited raise pools resulting is some potential increases in salary differences tied to gender and family circumstances. [No formal test of either hypothesis is feasible at this juncture.]

<u>4. Junior Markets and PhD Production:</u> The employment effects of the Great Recession have been particularly concentrated among "new hires," leaving in question the long term "prospects for faculty in the arts and sciences" outside top-tier programs.

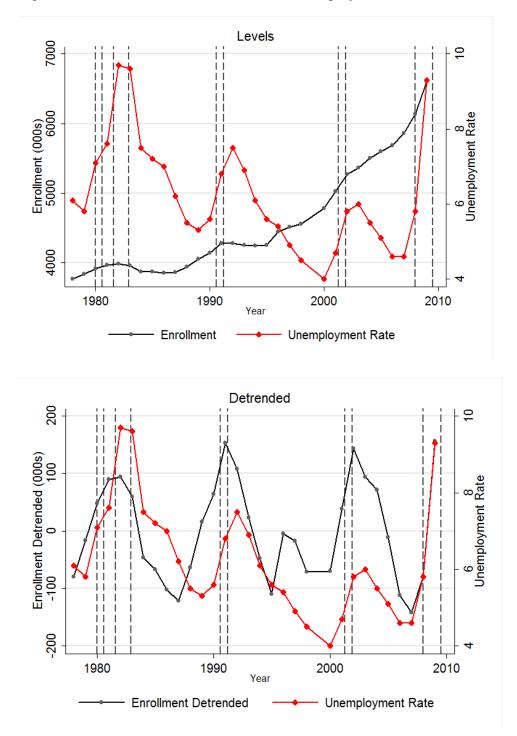
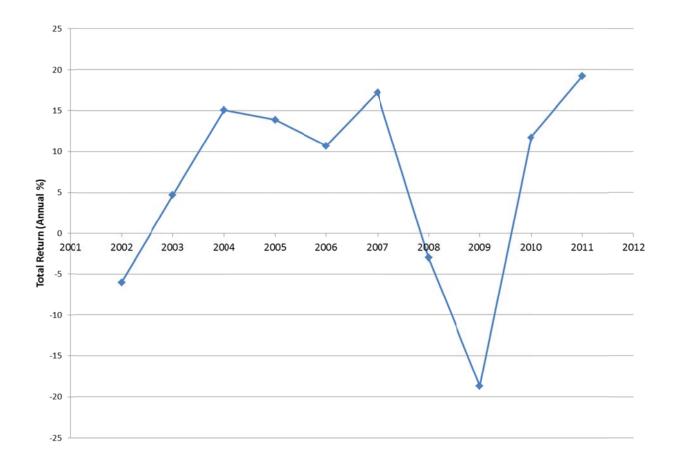


Figure 1. Trends in Total Enrollment and Unemployment Rates, 1980-2012

Notes: Figure from Barr and Turner (2012). Enrollment data are from NCES institution aggregate enrollment figures derived from HEGIS and IPEDS surveys. "Detrended" enrollment removes a cubic trend from the series. Vertical lines indicate recessions as benchmarked by NBER.

Figure 2. Average Annual Endowment Returns



Source: NACUBO Endowment Survey.

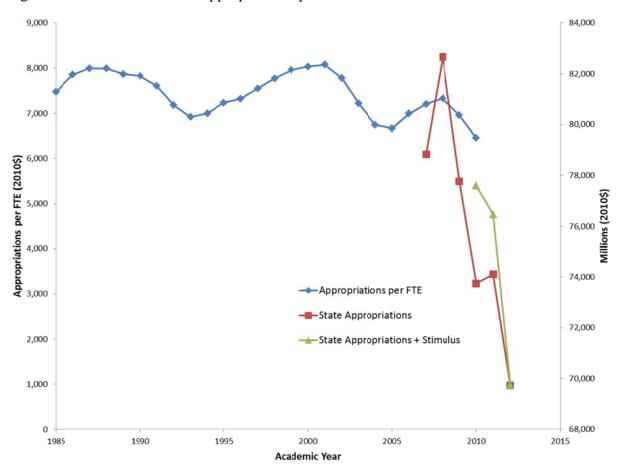


Figure 3. Public Educational Appropriations per FTE and Overall, 1985-2010

Source: State Higher Education Executive Offices and State Higher Education Finance (SHEF) project (http://www.sheeo.org/finance/shef-home.htm)

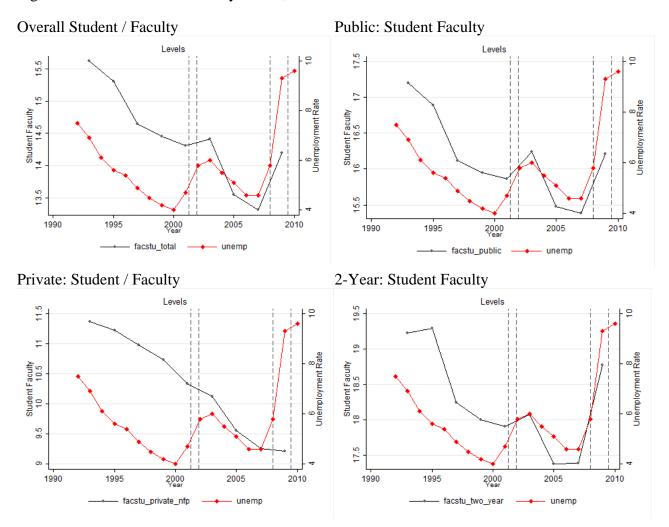


Figure 4. Overall Student-Faculty Ratios, 1980-2010