High Performing Pell Institutions:
A Typology and Analysis of Institutions with High Low-Income Student Success

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Introduction & Background

- Benefit of attaining college degree

- Persistent class-based gaps in timely graduation within and between institutions

- How do we identify which institutions are "high performing" in serving their low-income students?

Conceptual Framework
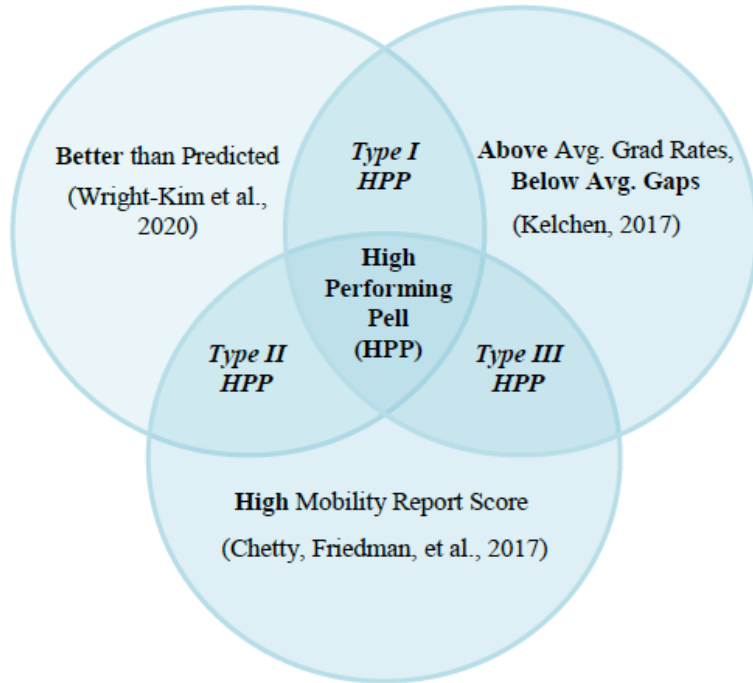
Better than Predicted
(Wright-Kim et al., 2020)

Type I
HPP

Above Avg. Grad Rates,
Below Avg. Gaps
(Kelchen, 2017)

High
Performing
Pell
(HPP)

Type II
HPP

Type III
HPP

High Mobility Report Score
(Chetty, Friedman, et al., 2017)

1. Which bachelor's-degree-granting U.S. institutions meet Type I, Type II, Type III, any, or all HPP criteria?

2. What are the unique characteristics of HPP institutions?

3. How do HPPs describe their purpose in mission statements, and which mission statement words are significantly associated with HPPs (any Type)?

Data

- IPEDS & Opportunity Insights Data

- Final sample (n=1,331):

    - Four-year, degree-granting, Title-IV, US-based institutions

    - Enrollment: first-time, full-time students; ≥50 Pell-eligible and ≥50 non-Pell-eligible students (2010-13 cohorts)

    - Data available for predictor values (time-variant institutional factors associated with low-income student attainment)

- Opportunity Insights campus-level upper mobility rates appended to sample

Methods

1. **Which bachelor's-degree-granting U.S. institutions meet Type I, Type II, Type III, any, or all HPP criteria?**
   - Better than predicted:

   $$\widehat{\text{Pell Graduation Rate}}_{is} = \beta_0 + \sum_{n=1}^{k} \beta_n X_{n(i)} + \phi_s$$

   $\text{Pell Graduation Rate}_{is}$ is the predicted Pell graduation rate for college i in state s, conditioned on observed relationships between $\boldsymbol{k}$ predictors and the outcome in prior years, a constant, and a state fixed effect.

   - Above average Pell graduation rate (>51.62%) and below average Pell-non Pell graduation rate gap (<9.06 percentage points)

   - Higher-than-average upper mobility rate (>1.92)

Results: High Performing Pell Inventory

- ***123 institutions met full HPP status (Type I, II, and III)***; 17 with grad rates *significantly* higher (90% CI) than predicted

  - Substantially higher graduation rates (72.4% vs. 52% nationally) and high upper mobility rates (3.53% vs. 1.92% nationally).

  - Nearly equivalent Pell and non-Pell graduation rates (0.44 points difference).

- ***Diverse group:*** private elite, public flagship, religiously-affiliated, HBCUs, women's colleges, regional publics, and (1) for-profit fashion design institute

  - **Students:** 28.67% are Black or Hispanic/Latinx, 54.93% are female, 11.21% older than 25, 35.09% receive Pell, 46.07% borrow loans, 89.03% enrolled fulltime

  - **Size & location:** 60% of HPPs located in cities; geographically dispersed across U.S.; 63% of HPPs have <5,000 FTE

  - **Cost:** Lower than avg. net price for students from families earning <$30,000

## 2. What are the unique characteristics of HPP institutions?

$$y_i = \beta_0 + \mathbf{X}'_{it}\beta + \phi_s + \pi_t + \varepsilon_i$$

y_i is college i's classification as a HPP in 2018-19, $\mathbf{X}'_{it}$ is a vector of the same time-variant institutional controls, ϕ_s are state fixed effects, and π_t are year fixed effects

- Traditional indicators do not predict HPP status. Among all $\mathbf{X}'_{it}$s:

  - Adj. R^2 = 0.191

  - Percent UG women: -0.002*

  - Percent UG adult: -0.002*

  - Percent borrowed loans: -0.002**

  - Student Services $ per FTE: -0.0001*

- HPP status is a particularly special occurrence

3. How do HPPs describe their purpose in mission statements, and which mission statement words are significantly associated with HPPs (any Type)?

- Text mining of HPP mission statements (n = 177)

- Cross-validated LASSO and random forest methods (dimension reduction) to identify words in mission statements most predictive of an institution being placed into a HPP Type
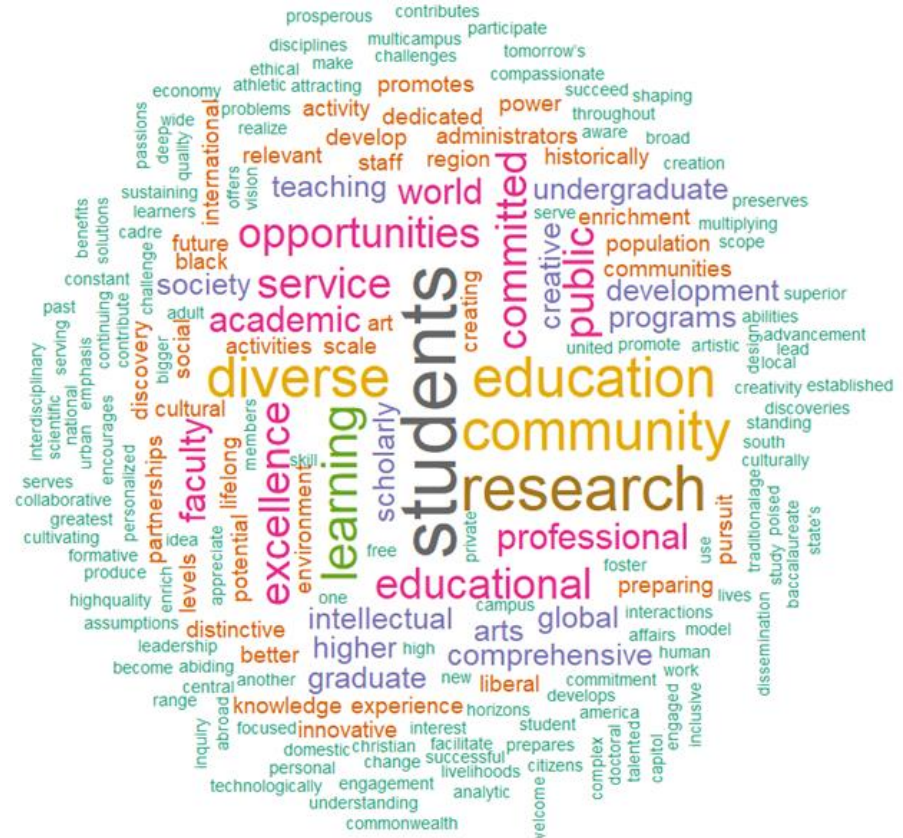
Discussion & Implications

"The really difficult work of shaping institutional practice, in particular for low-income students, has yet to be tackled" (Tinto, 2005)

- Value of typology/model useful for further research on successful institutional practices to support this population

- Practitioners/institutional leaders may also want to seek out HPP peers to consult on best practices for serving this student population

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