Towards a Framework for Accountability in Higher Education

Jordan Matsudaira
Columbia University

Lesley J. Turner
Vanderbilt University

September 8, 2020 | Brookings Institution Conference on Regulation & Accountability

Defining the Problem

- At some postsecondary institutions and programs, students regularly (and predictably) experience poor outcomes

Defining the Problem

- At some postsecondary institutions and programs, students regularly (and predictably) experience poor outcomes
  - Low earnings

Defining the Problem

- At some postsecondary institutions and programs, students regularly (and predictably) experience poor outcomes
  - Low earnings
  - Unmanageable debt

Defining the Problem

- At some postsecondary institutions and programs, students regularly (and predictably) experience poor outcomes
  - Low earnings
  - Unmanageable debt
- Past higher education accountability efforts improved student outcomes, but old systems need to be adapted to new realities in higher education

Defining the Problem

- At some postsecondary institutions and programs, students regularly (and predictably) experience poor outcomes
  - Low earnings
  - Unmanageable debt
- Past higher education accountability efforts improved student outcomes, but old systems need to be adapted to new realities in higher education
- Minimum standards for outcomes that students value are not as elusive: federal aid should **"do no harm"**

Principles for Accountability Metrics

1. Represent unambiguously positive outcomes for students
2. Minimum acceptable performance to set thresholds
3. Difficult to manipulate (outside of actually improving student outcomes)
4. Simple and easy to understand
5. Measured over time horizon that allows action before too many students are harmed but also ensures accuracy
6. Applied to all sectors (as many as possible)

Proposed Metrics

Net earnings

Loan repayment rate

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium =

(*median earnings* | *working*) – (*median O.O.P. costs*) – (*median HS earnings*)

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium =

(*median earnings | working*) – (*median O.O.P. costs*) – (*median HS earnings*)

- Measured 3 years after program exit
- Includes noncompleters

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium =

(*median earnings* | *working*) – **(*median O.O.P. costs*)** – (*median HS earnings*)

- Out-of-pocket expenditures on tuition and fees net of grant aid
- Amortization period: 10 (sub-BA), 15 (BA), or 20 (post-BA) years

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium =

(*median earnings* | *working*) – (*median O.O.P. costs*) – **(*median HS earnings*)**

- State-level earnings for all high school graduates, 25-35 years old
- Automatic adjustment for business cycle, regional fluctuations

Net earnings premium

- Do at least half of former students earn above typical high school graduates in their state after accounting for their education costs?

Net earnings premium =

(*median earnings* | *working*) – (*median O.O.P. costs*) – (*median HS earnings*)

- Would require slight changes in reporting for data already collected
  - Could be achieved through sharing 1098-T data with ED

Loan repayment rate

- Can a cohort of borrowers reduce their outstanding student debt by at least $1, three years after entering repayment?

Loan repayment rate

- Can a cohort of borrowers reduce their outstanding student debt by at least $1, three years after entering repayment?

$$Loan\ repayment\ rate = 1 - \frac{(Balance\ at\ 3\ years\ )}{(Balance\ at\ repayment)}$$

Loan repayment rate

- Can a cohort of borrowers reduce their outstanding student debt by at least $1, three years after entering repayment?

$$Loan\ repayment\ rate = 1 - \frac{(\textbf{\textit{Balance at 3 years}})}{(Balance\ at\ repayment)}$$

- Principal + interest 3 years after entering repayment
- Excludes borrowers who have died, become disabled, those with in-school or military deferments

Loan repayment rate

- Can a cohort of borrowers reduce their outstanding student debt by at least $1, three years after entering repayment?

$$Loan\ repayment\ rate = 1 - \frac{(Balance\ at\ 3\ years\ )}{(\boldsymbol{Balance\ at\ repayment})}$$

- Principal + interest at repayment
- Excludes borrowers who died, become disabled, received in-school or military deferments at year 3

Loan repayment rate

- Can a cohort of borrowers reduce their outstanding student debt by at least $1, three years after entering repayment?

$$\textit{Loan repayment rate} = 1 - \frac{(\textbf{\textit{Balance at 3 years}})}{(\textbf{\textit{Balance at repayment}})}$$

- Greater than 1 if balance has increased => negative loan RR
- Less than 1 if balance has decreased => positive RR

Proposed metrics

- Program versus school-level measurement

Proposed metrics

- Program versus school-level measurement

Proposed metrics

- Program versus school-level measurement
- Defining programs
  - 2-digit CIP code
  - Allows sufficient sample sizes to cover 91% of all students (51% of programs)
  - Very little difference in performance with more detailed CIP

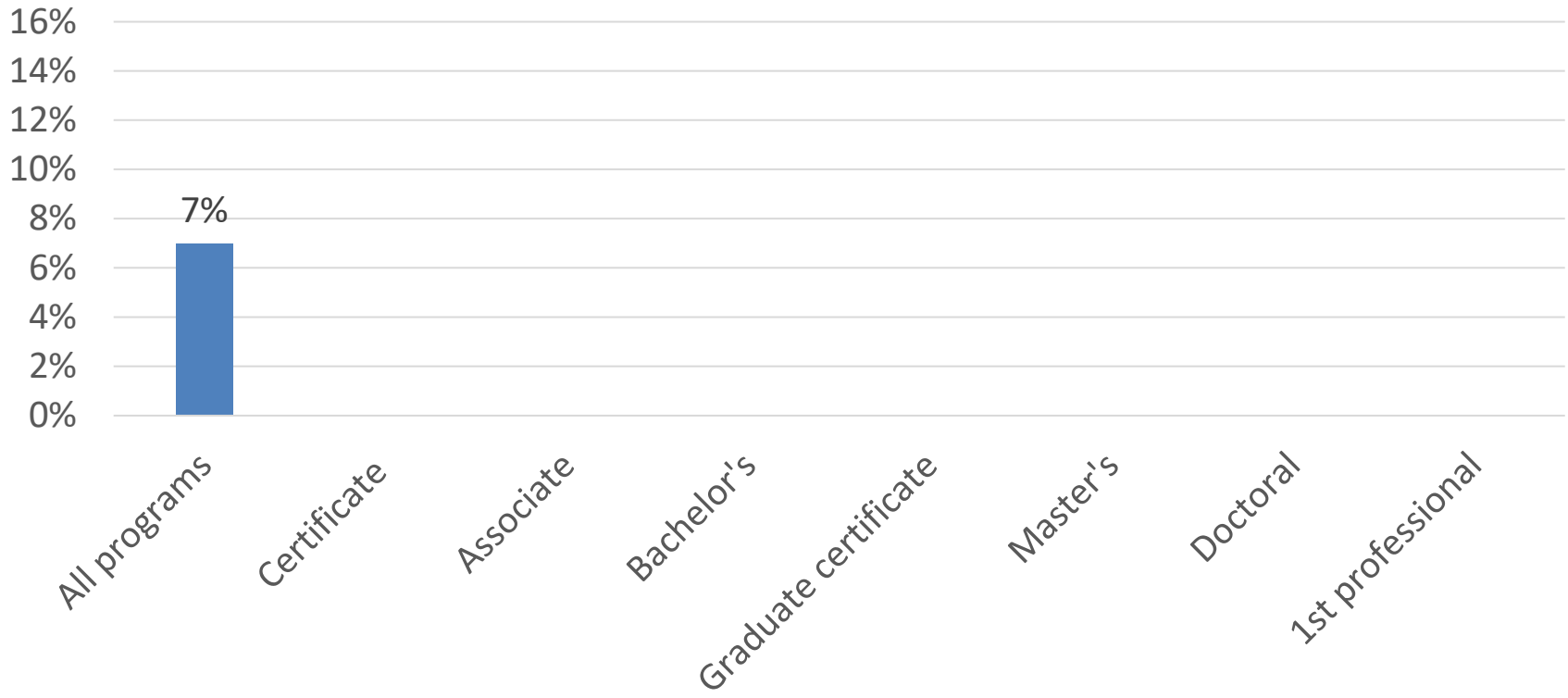
Proposed metrics

- Program versus school-level measurement
- Defining programs
  - 2-digit CIP code
  - Allows sufficient sample sizes to cover 91% of all students (51% of programs)
  - Very little difference in performance with more detailed CIP
- Why two separate measures?
  - Schools that opt-out of loan programs remain covered
  - Under-reporting of earnings in certain occupations
  - Incentives for programs to reduce OOP costs

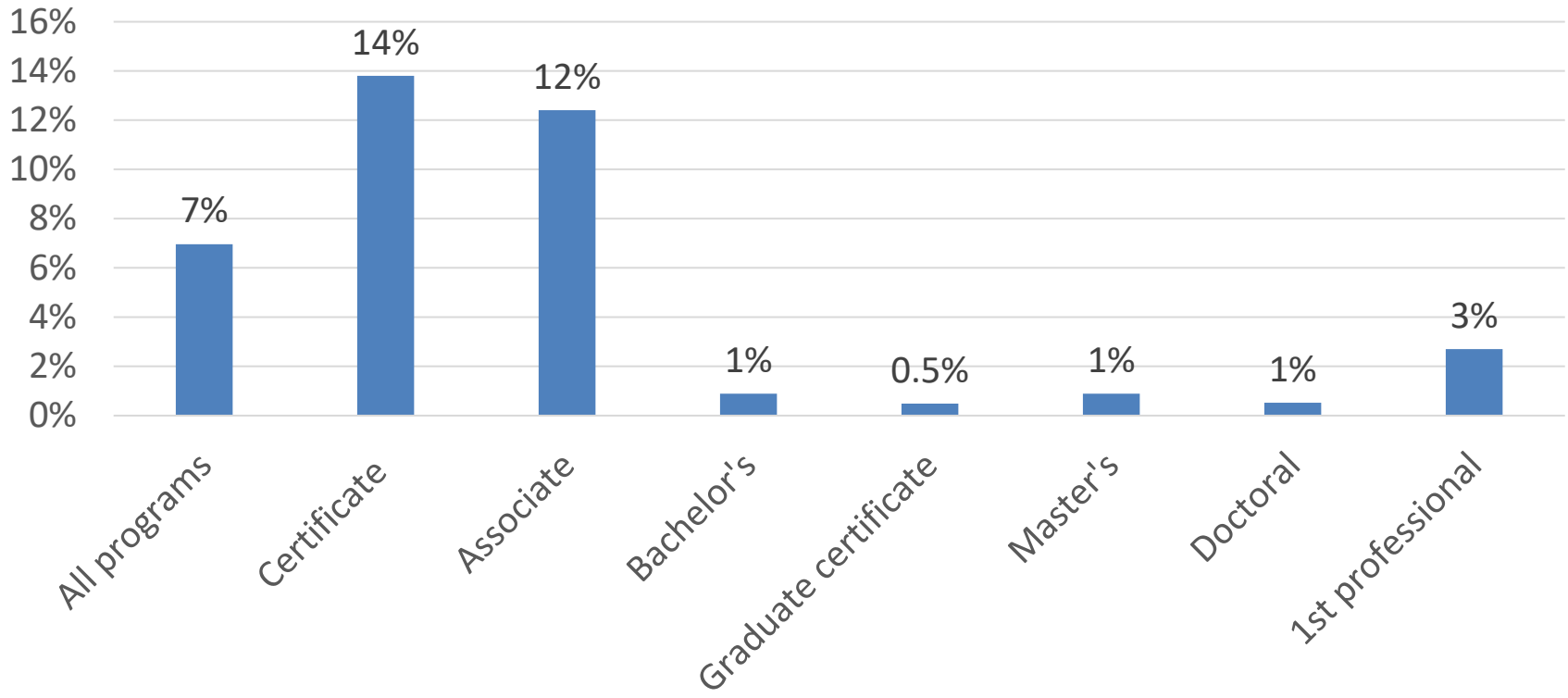
Proposed metrics

- Program versus school-level measurement
- Defining programs
  - 2-digit CIP code
  - Allows sufficient sample sizes to cover 91% of all students (51% of programs)
  - Very little difference in performance with more detailed CIP
- Why two separate measures?
  - Schools that opt-out of loan programs remain covered
  - Under-reporting of earnings in certain occupations
  - Incentives for programs to reduce OOP costs
- Modeling performance
  - College scorecard program-level earnings + program-level loan balances
  - CAVEAT: best approximation of performance with available data

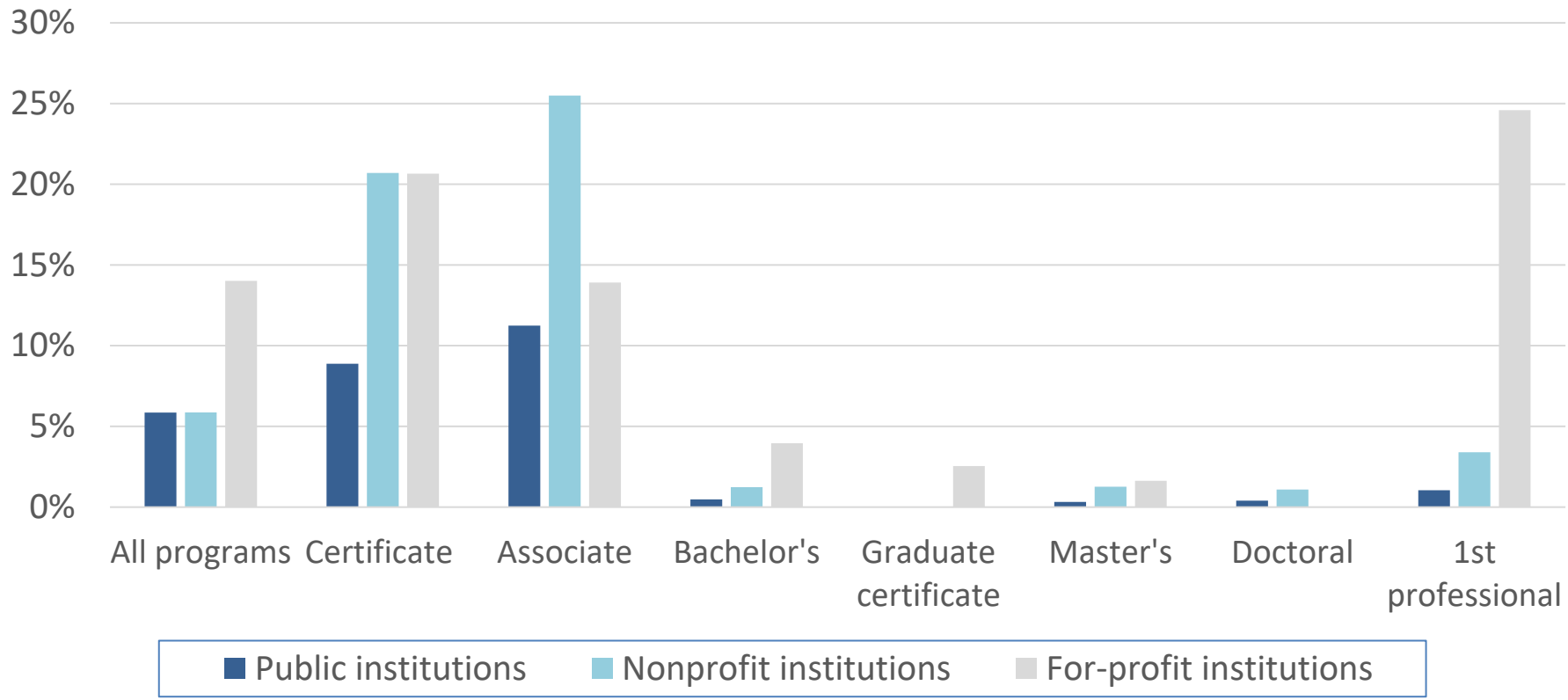
Percent of students in programs with both negative earnings premia and negative repayment rates



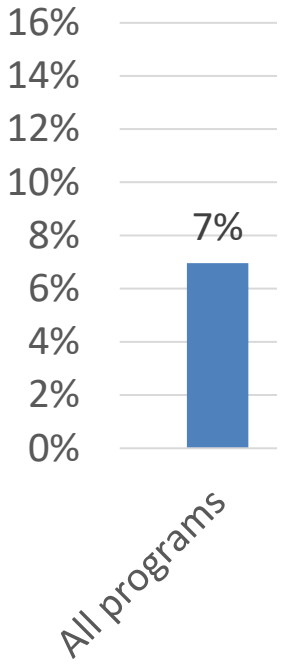
Percent of students in programs with both negative earnings premia and negative repayment rates



Percent of students in programs with both negative earnings premia and negative repayment rates



Percent of students in programs with both negative earnings premia and negative repayment rates



What this means for students in these programs:

- >500,000 students per year
- $6.2b in federal student debt at exit
- $6.4b in federal loans 3 years later
- Est $6.8b in out-of-pocket costs
- 2 out of 3 students came from schools with alternative programs that would provide positive net earnings and/or loan repayment

What this means for schools

% of students in failing progs	All institutions
0%	0.79
1-25%	
25-75%	
75-99%	
100%	

What this means for schools

% of students in failing progs	All institutions
0%	0.79
1-25%	0.07
25-75%	0.05
75-99%	0.02
100%	0.07

What this means for schools

% of students in failing progs	All institutions	Public institutions	Nonprofit institutions	For-profit institutions
0%	0.79	0.75	0.91	0.73
1-25%	0.07	0.11	0.04	0.04
25-75%	0.05	0.09	0.02	0.04
75-99%	0.02	0.03	0.01	0.01
100%	0.07	0.02	0.02	0.18

What this means for schools

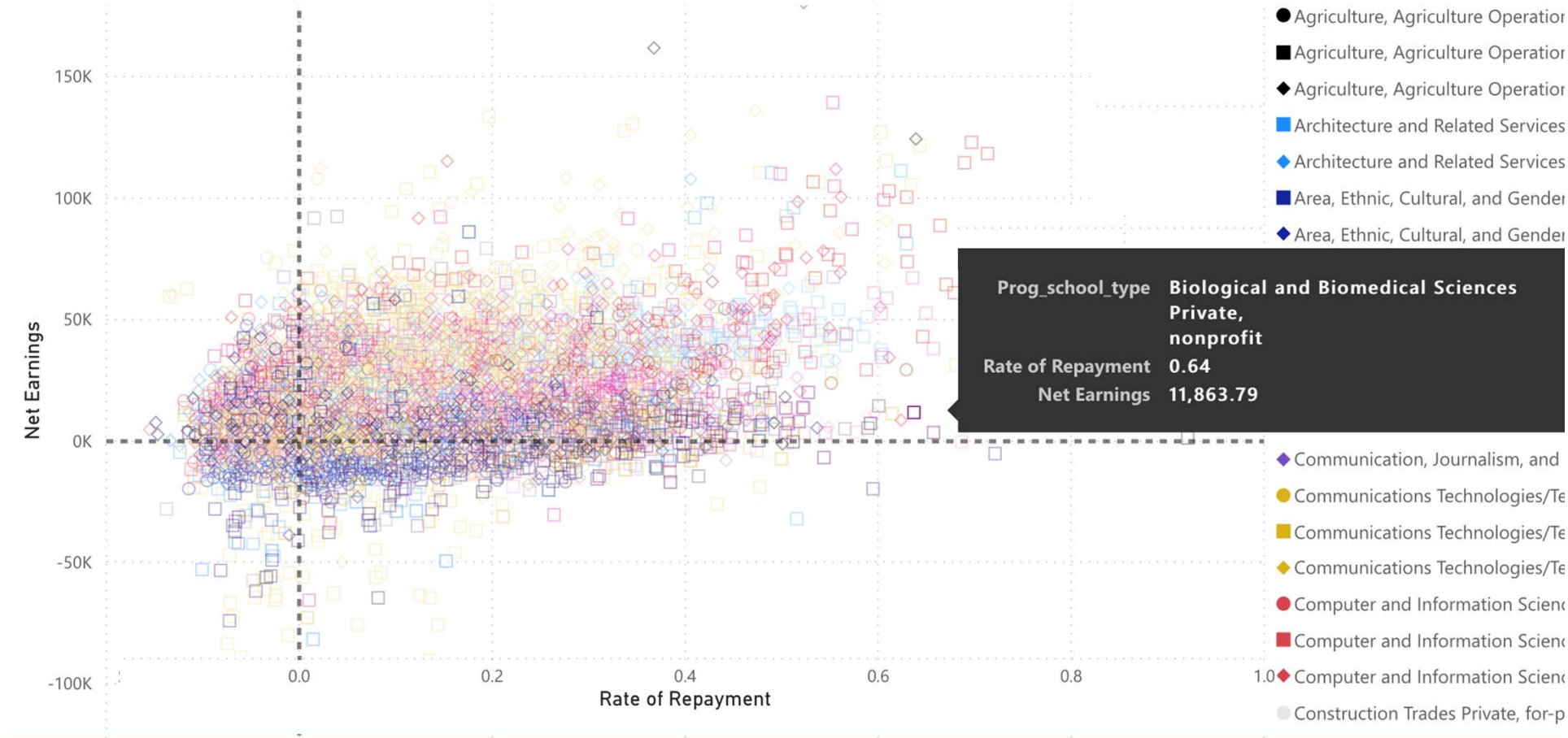
% of students in failing progs	All institutions	Public institutions	Nonprofit institutions	For-profit institutions
0%	0.79	0.75	0.91	0.73
1-25%	0.07	0.11	0.04	0.04
25-75%	0.05	0.09	0.02	0.04
75-99%	0.02	0.03	0.01	0.01
100%	0.07	0.02	0.02	0.18

What this means for schools

% of students in failing progs	All institutions	Public institutions	Nonprofit institutions	For-profit institutions
0%	0.79	0.75	0.91	0.73
1-25%	0.07	0.11	0.04	0.04
25-75%	0.05	0.09	0.02	0.04
75-99%	0.02	0.03	0.01	0.01
100%	0.07	0.02	0.02	0.18

- In schools with at least 1 failing program:
  - *Public: only 10% of schools had more than 90% of programs fail*
  - *For-profit: over 50% of schools had all failing programs*

Coming Soon: Visualization Tool



Coming Soon: Visualization Tool

Thank you!

Jordan Matsudaira

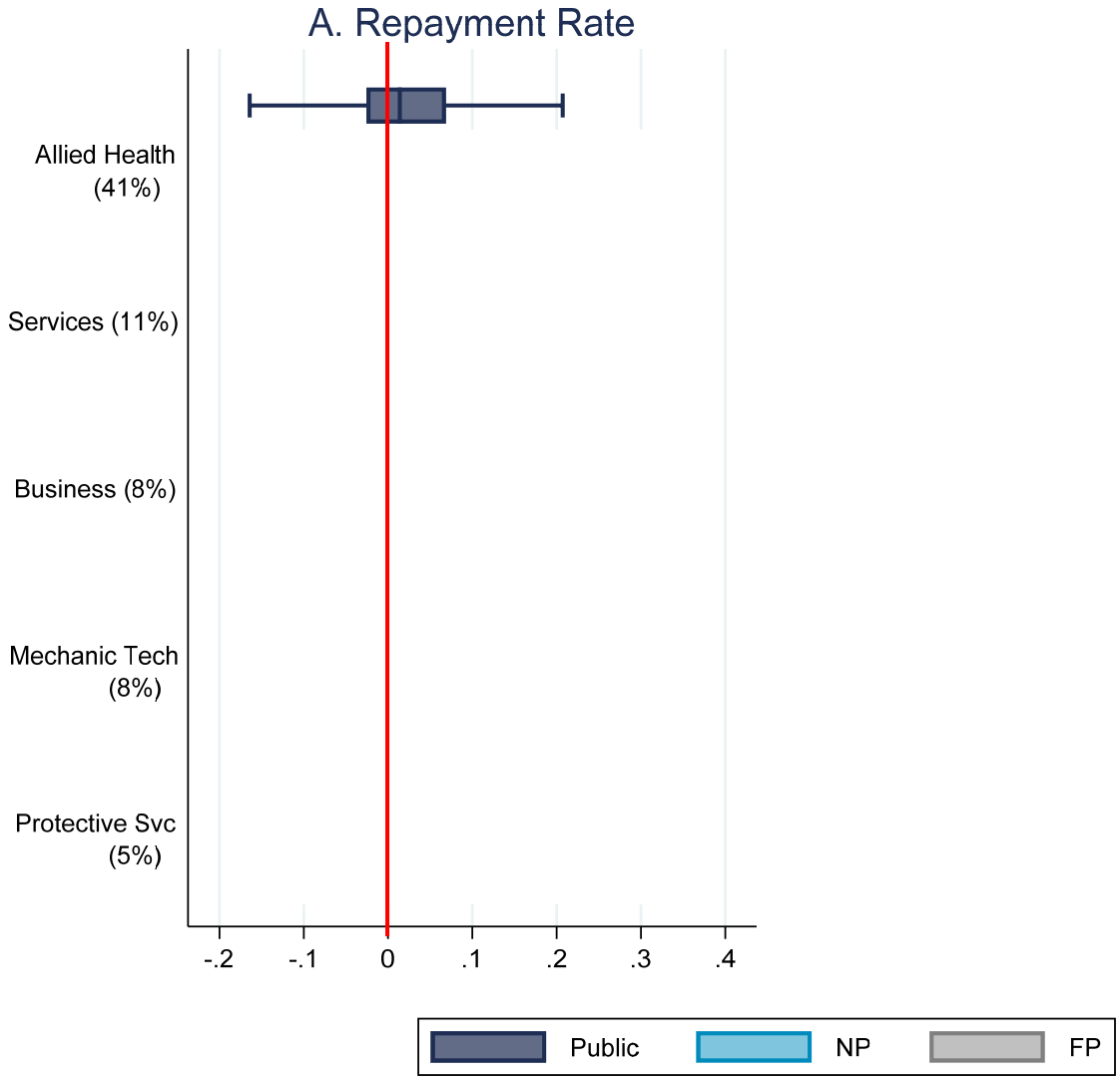
jm4763@tc.columbia.edu

Lesley J. Turner

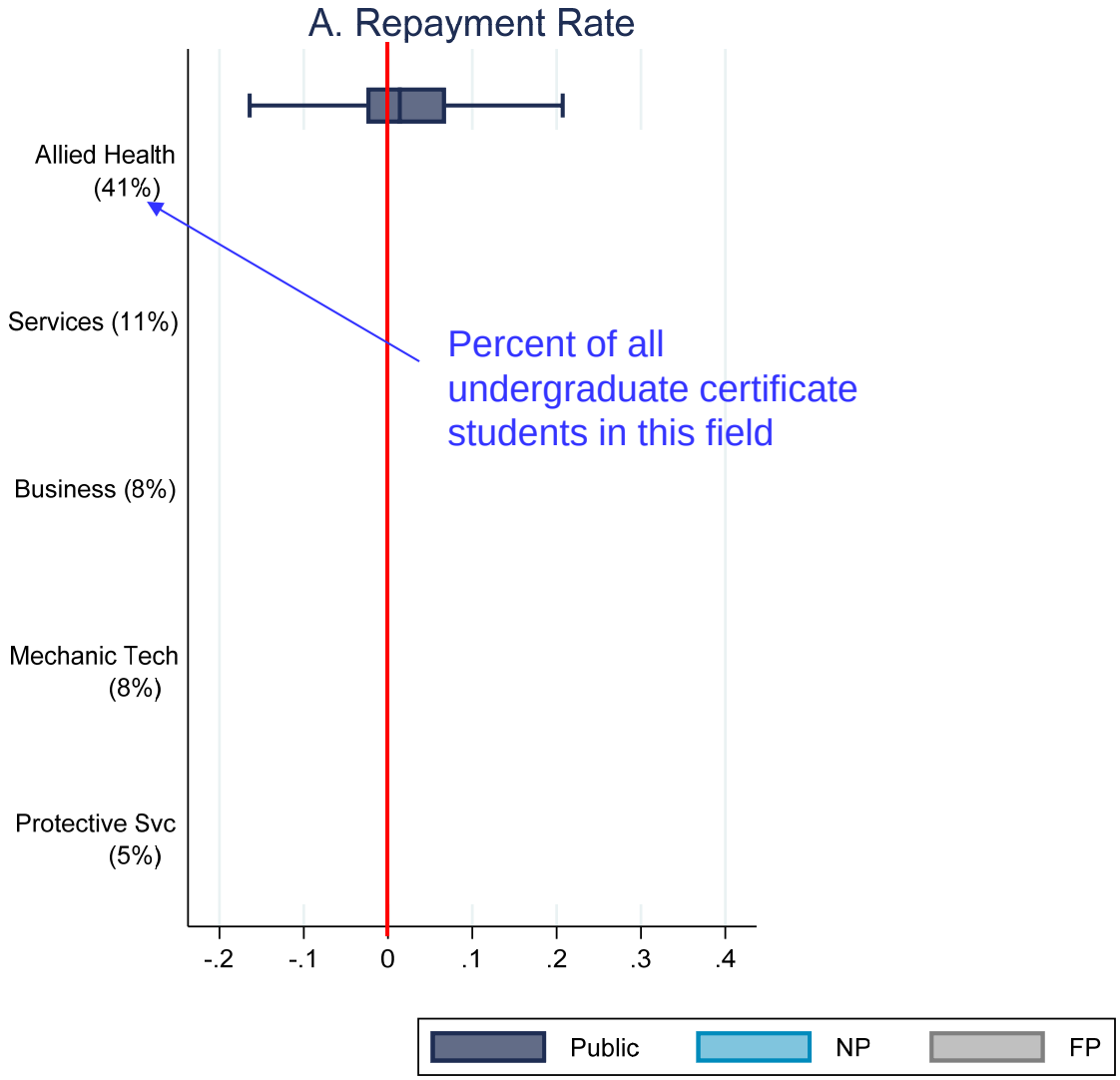
lesley.j.turner@vanderbilt.edu

Bonus slides

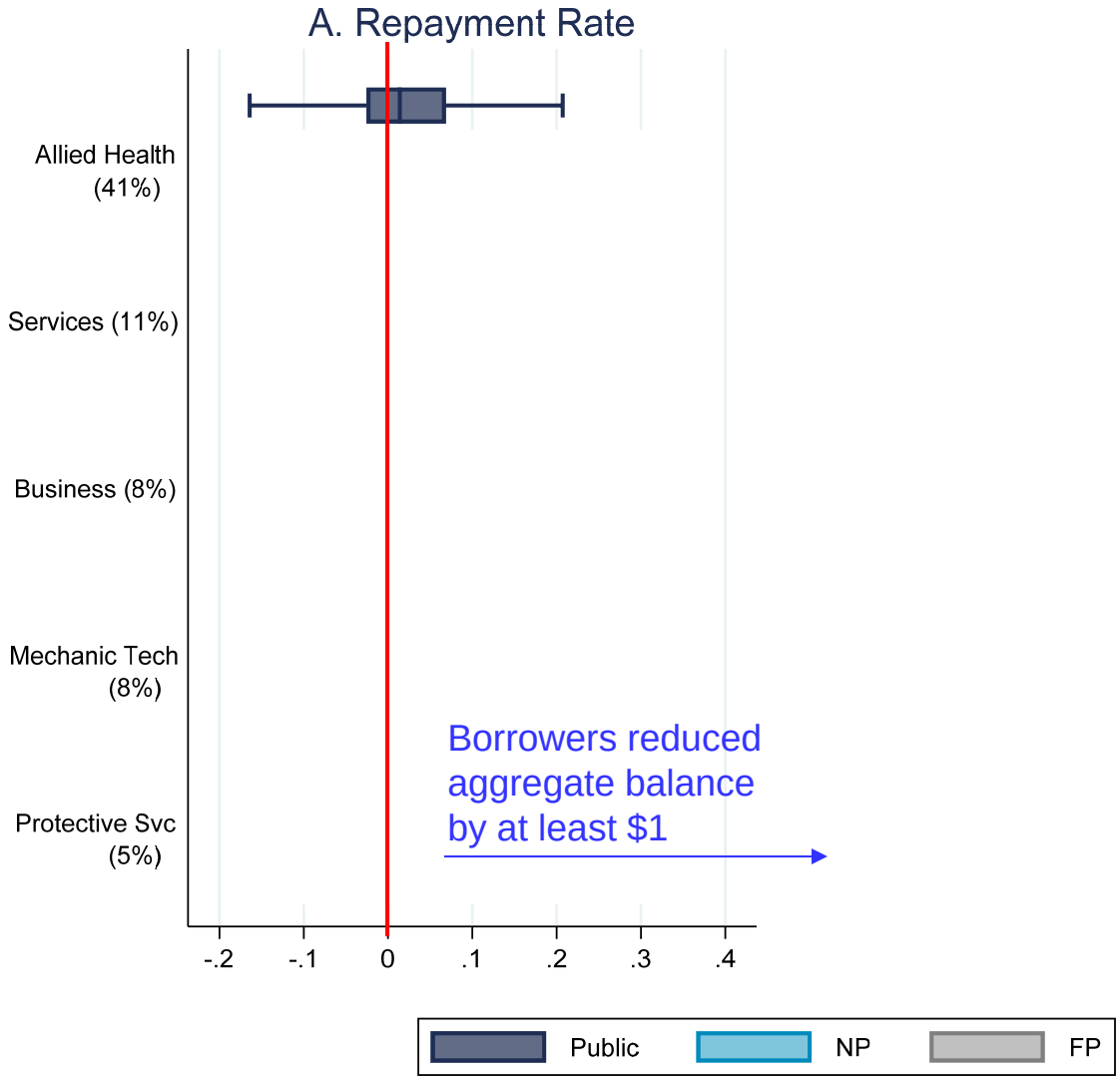
Undergraduate Certificate Programs



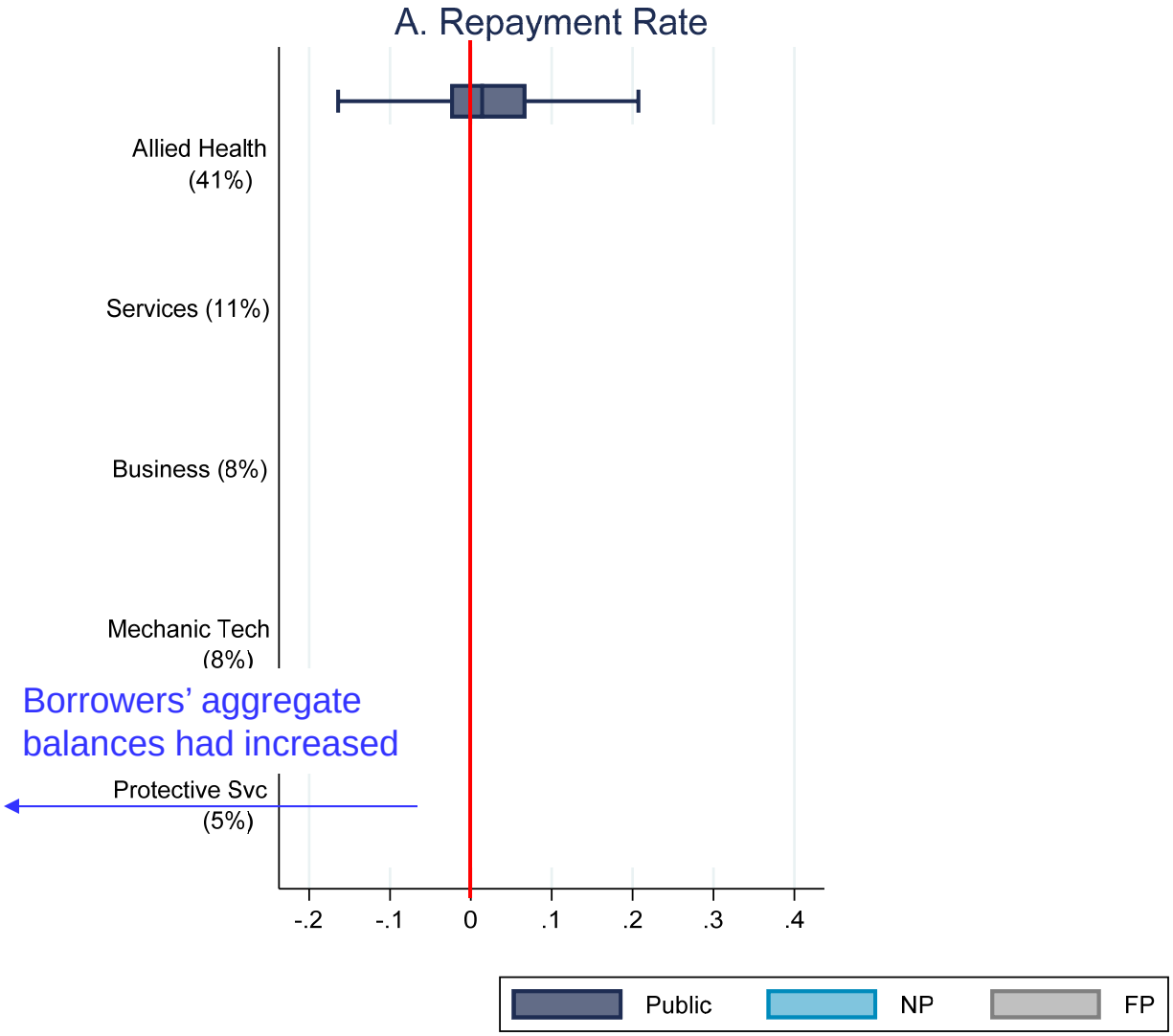
Undergraduate Certificate Programs



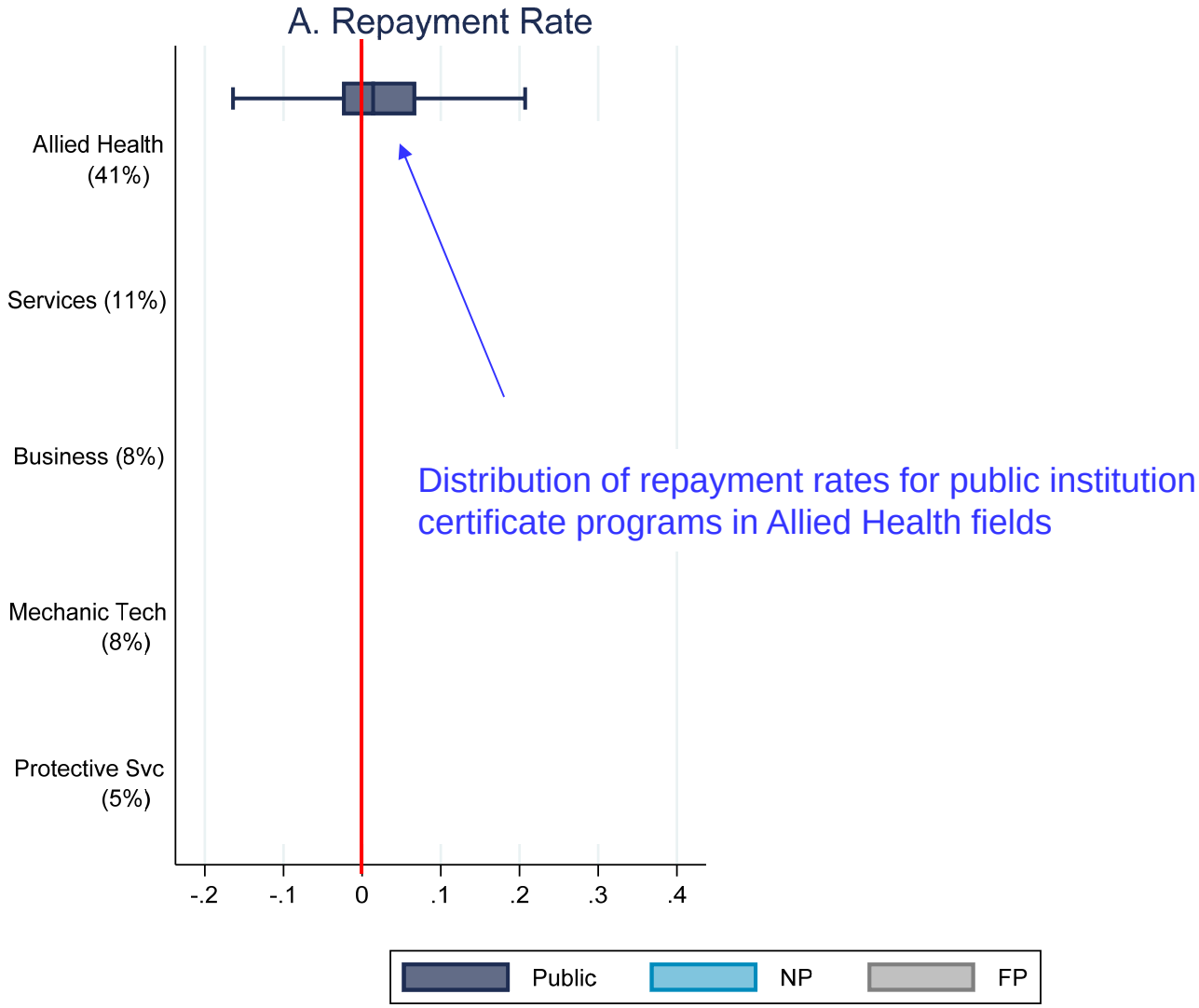
Undergraduate Certificate Programs



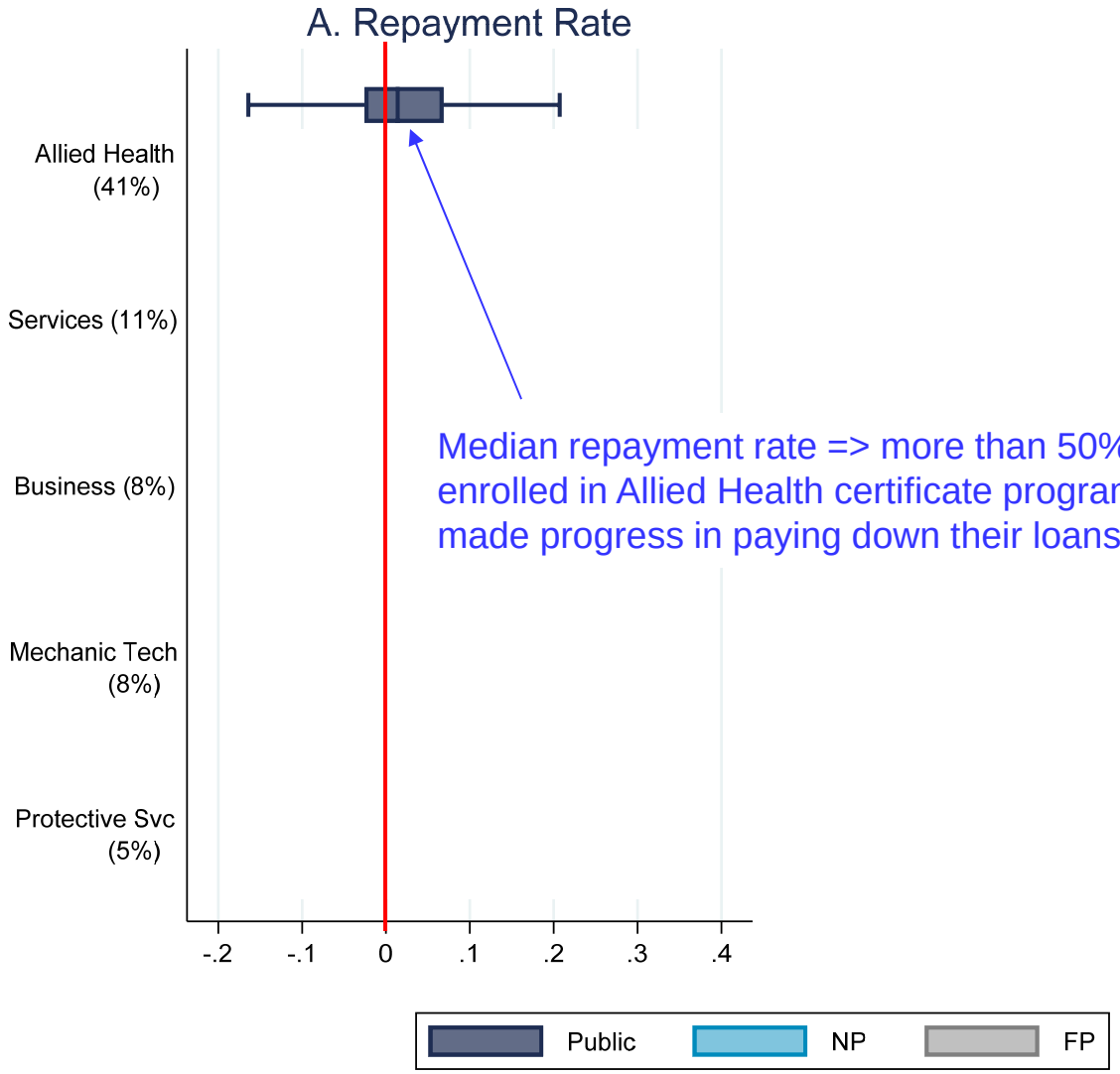
Undergraduate Certificate Programs



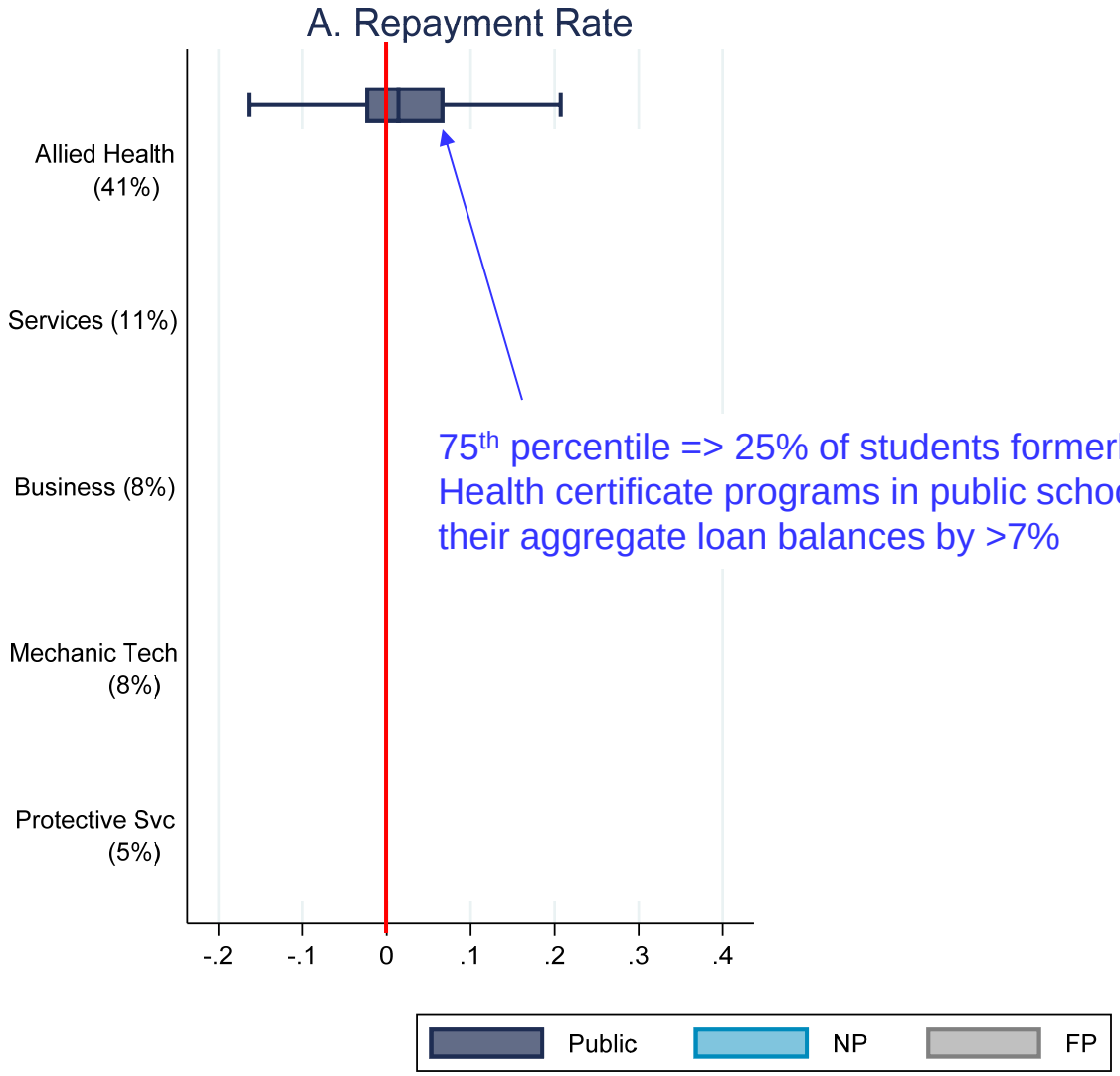
Undergraduate Certificate Programs



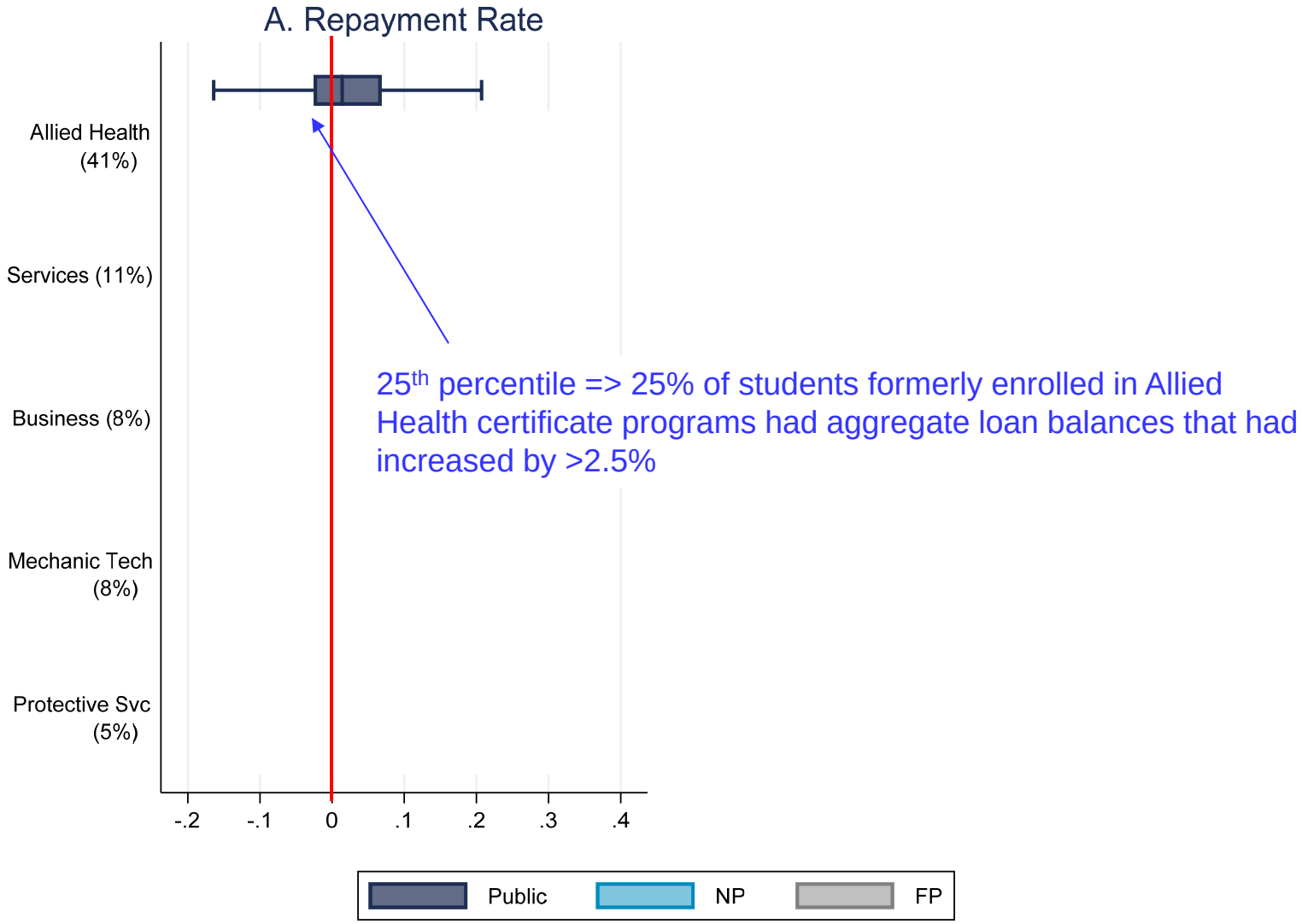
Undergraduate Certificate Programs



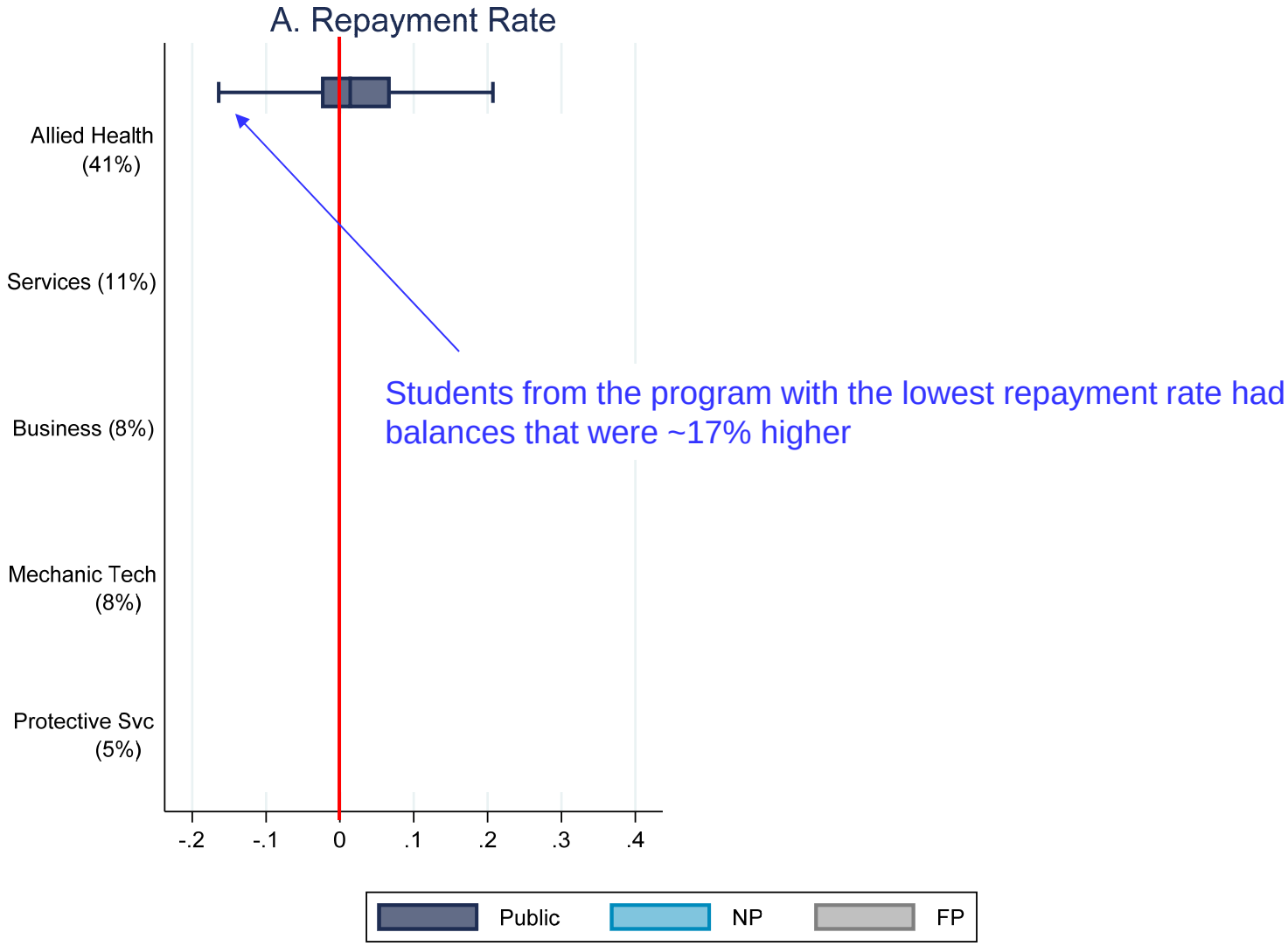
Undergraduate Certificate Programs



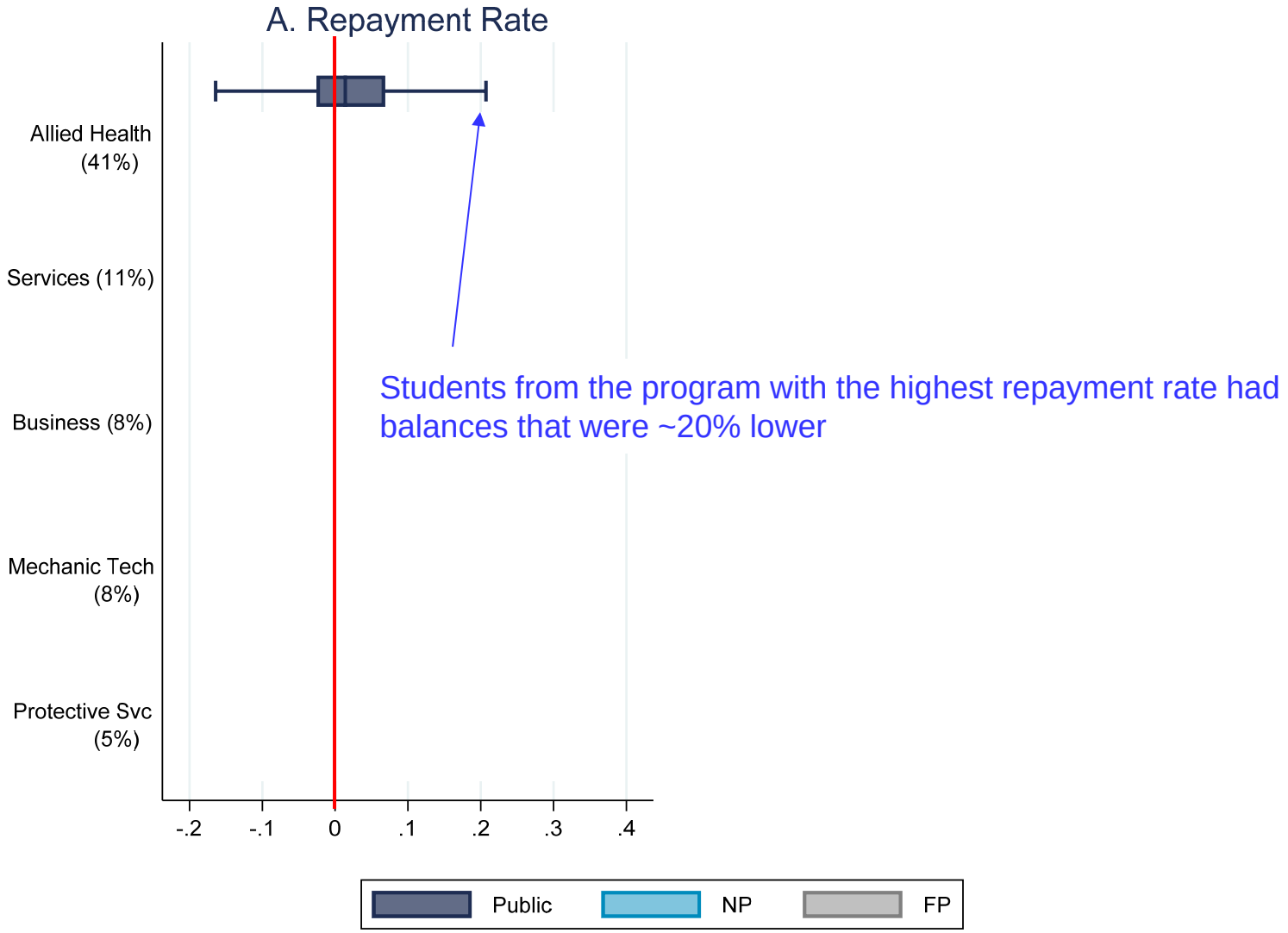
Undergraduate Certificate Programs

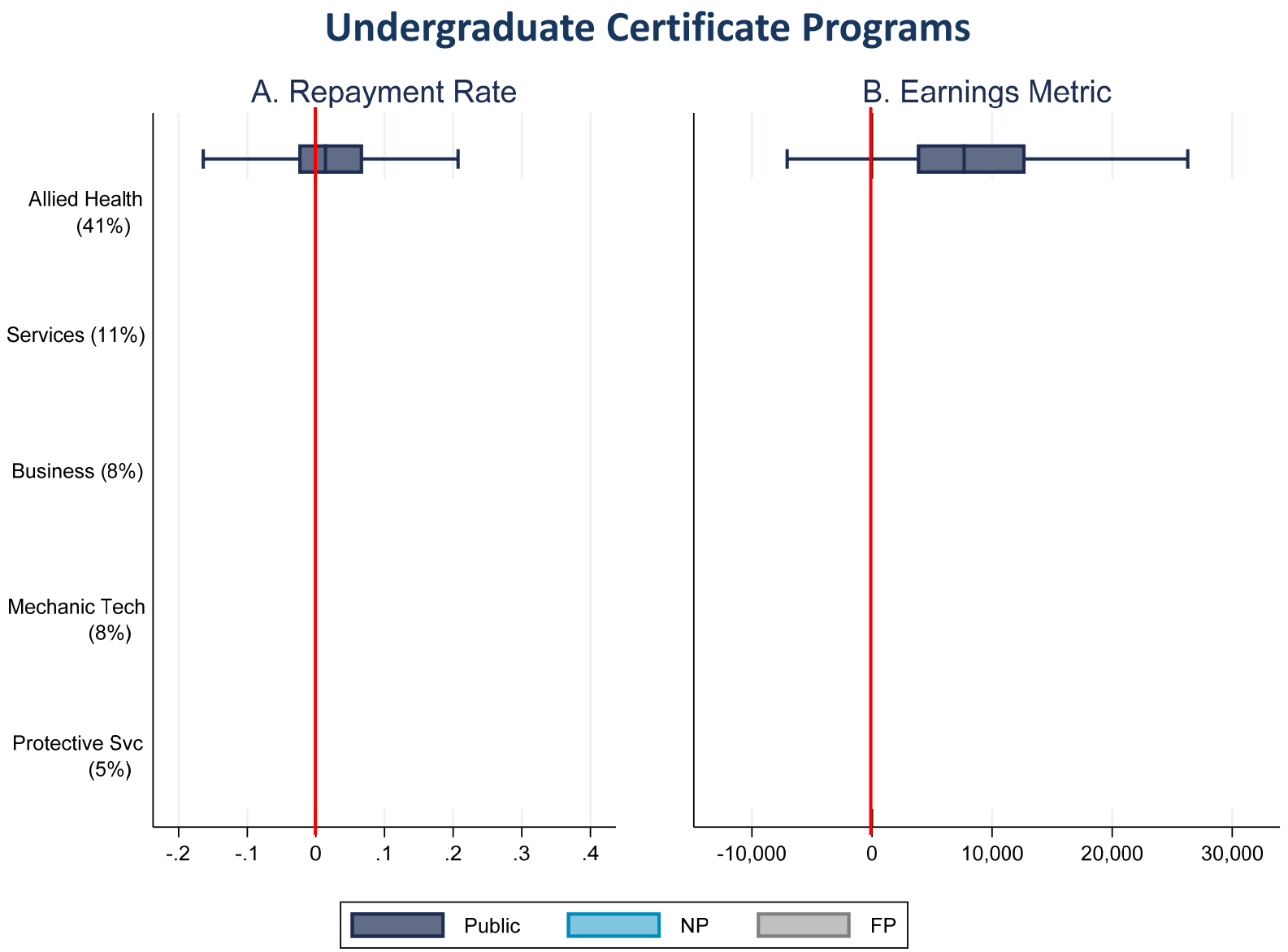


Undergraduate Certificate Programs

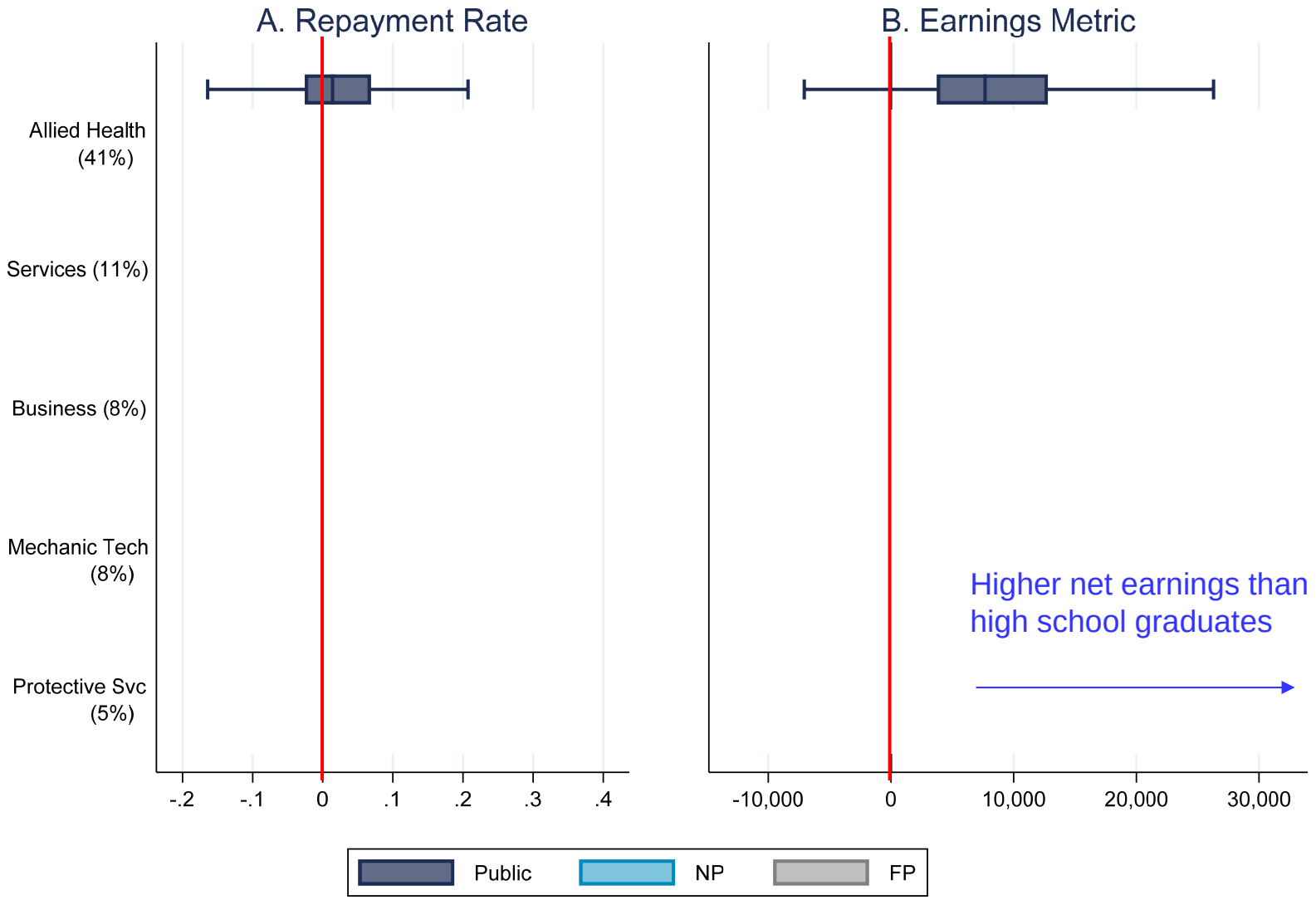


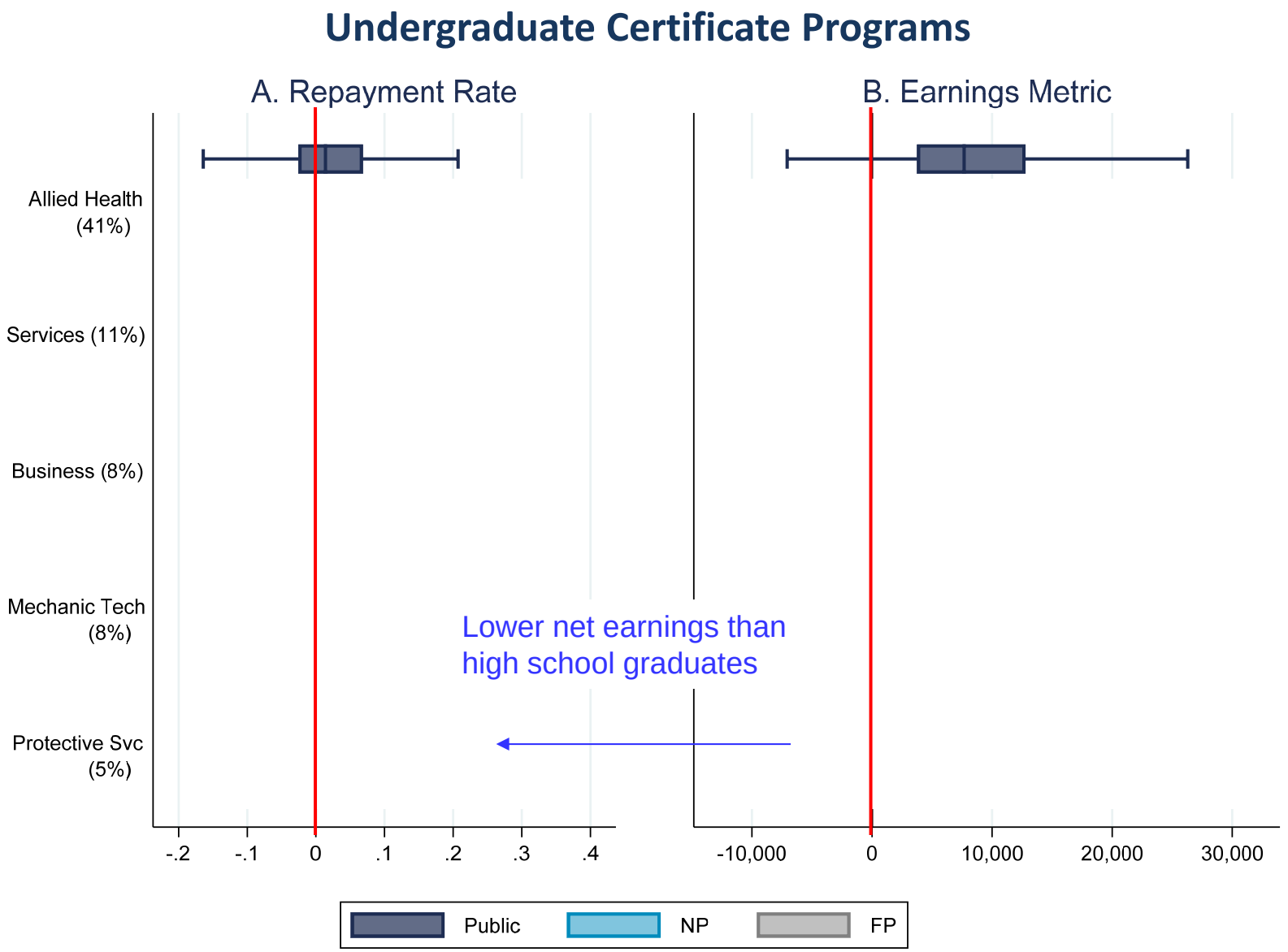
Undergraduate Certificate Programs



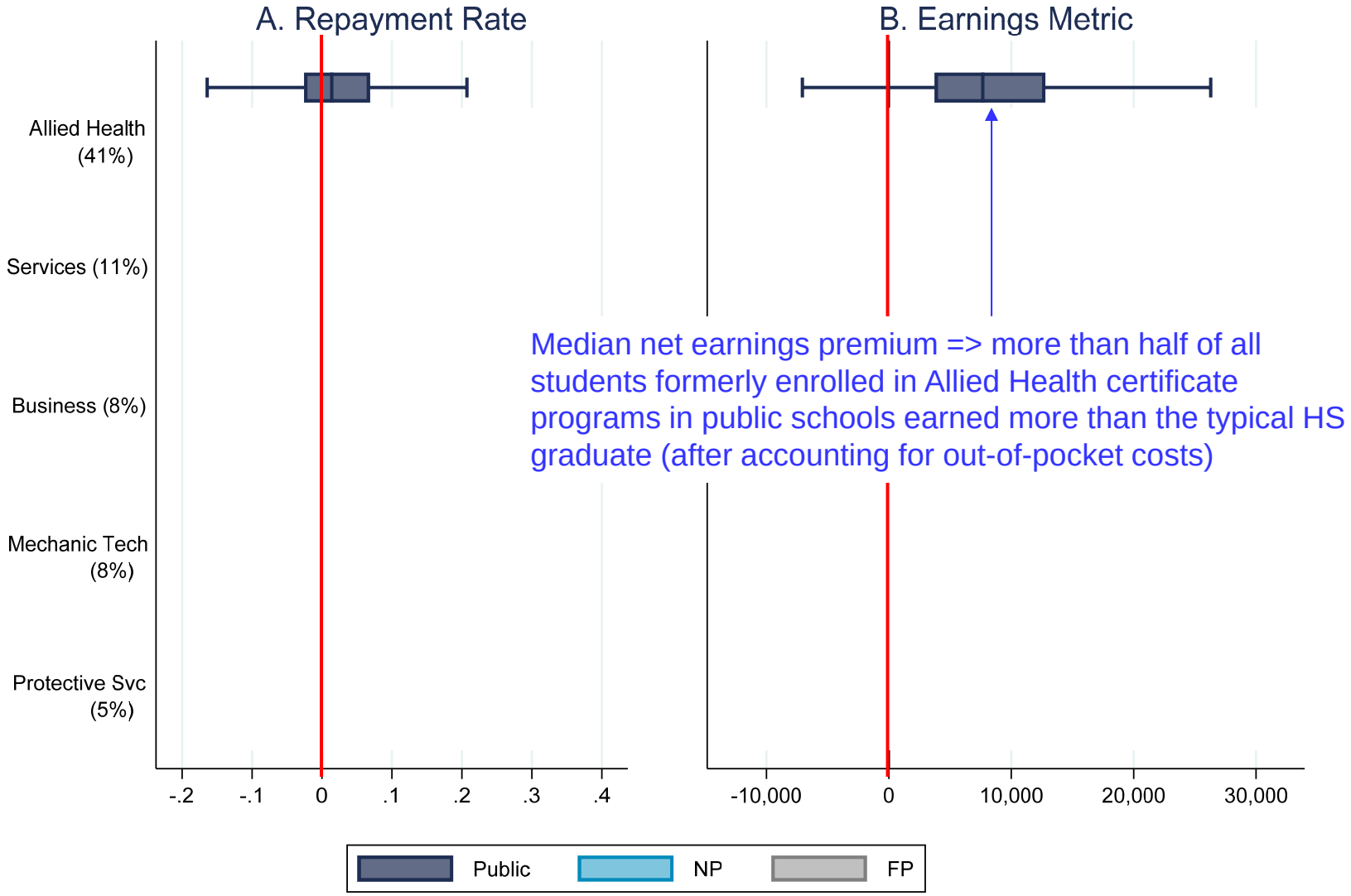

Undergraduate Certificate Programs
A. Repayment Rate
B. Earnings Metric
Allied Health (41%)
Services (11%)
Business (8%)
Mechanic Tech (8%)
Protective Svc (5%)
-.2
-.1
0
.1
.2
.3
.4
-10,000
0
10,000
20,000
30,000
Public
NP
FP

Undergraduate Certificate Programs

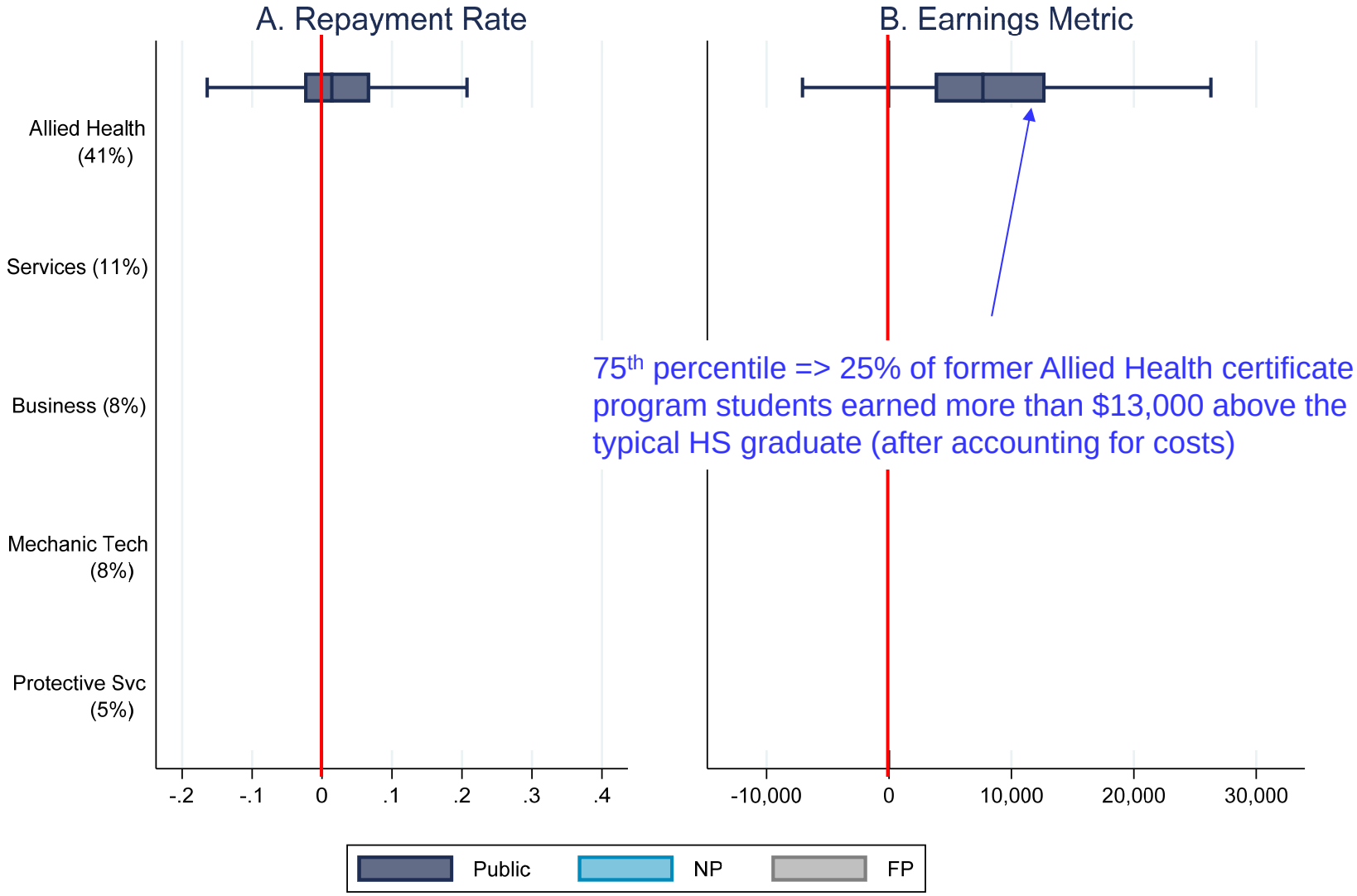



Undergraduate Certificate Programs
A. Repayment Rate
B. Earnings Metric
Allied Health (41%)
Services (11%)
Business (8%)
Mechanic Tech (8%)
Protective Svc (5%)
Lower net earnings than high school graduates
-.2
-.1
0
.1
.2
.3
.4
-10,000
0
10,000
20,000
30,000
Public
NP
FP

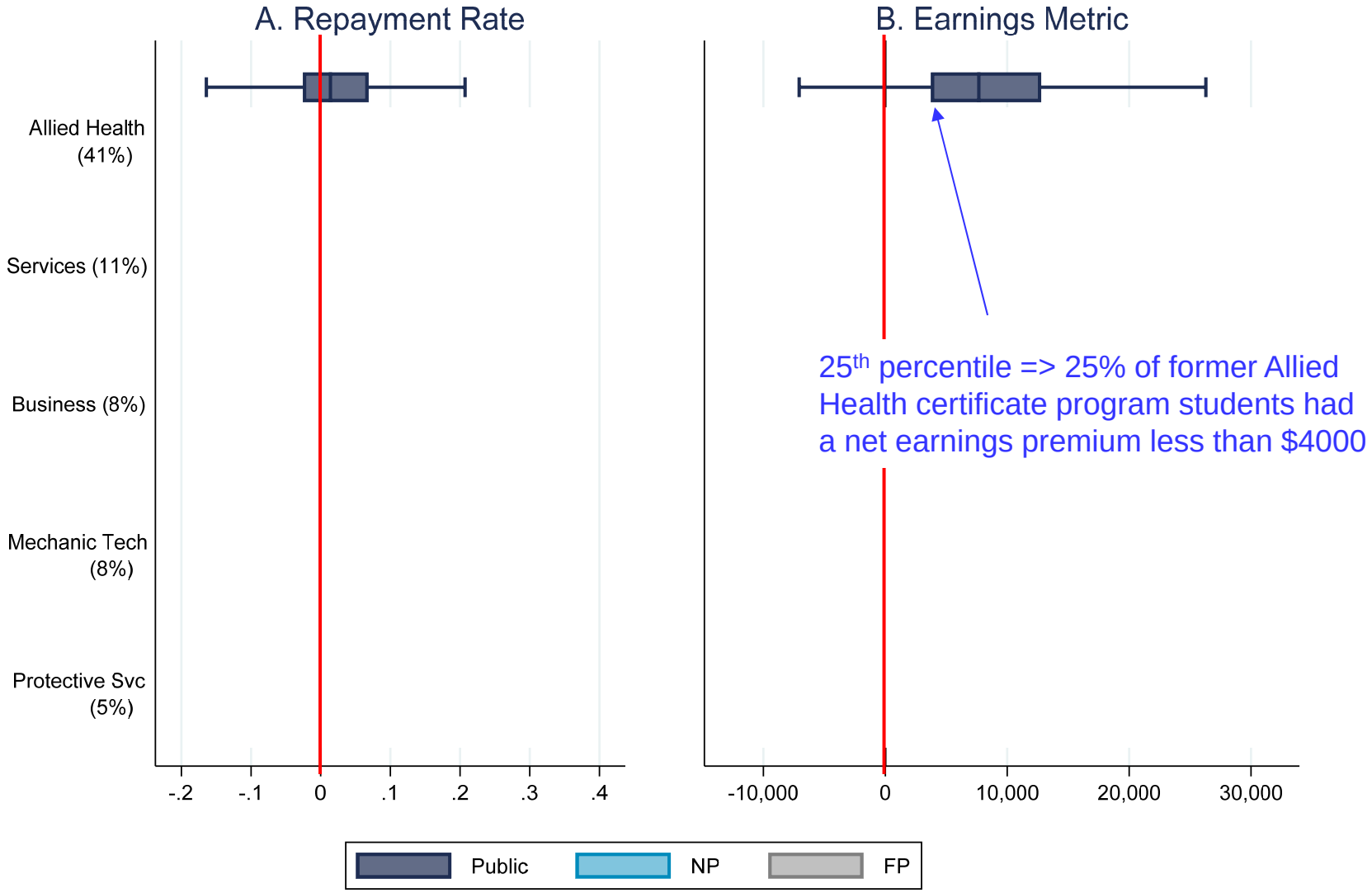
Undergraduate Certificate Programs



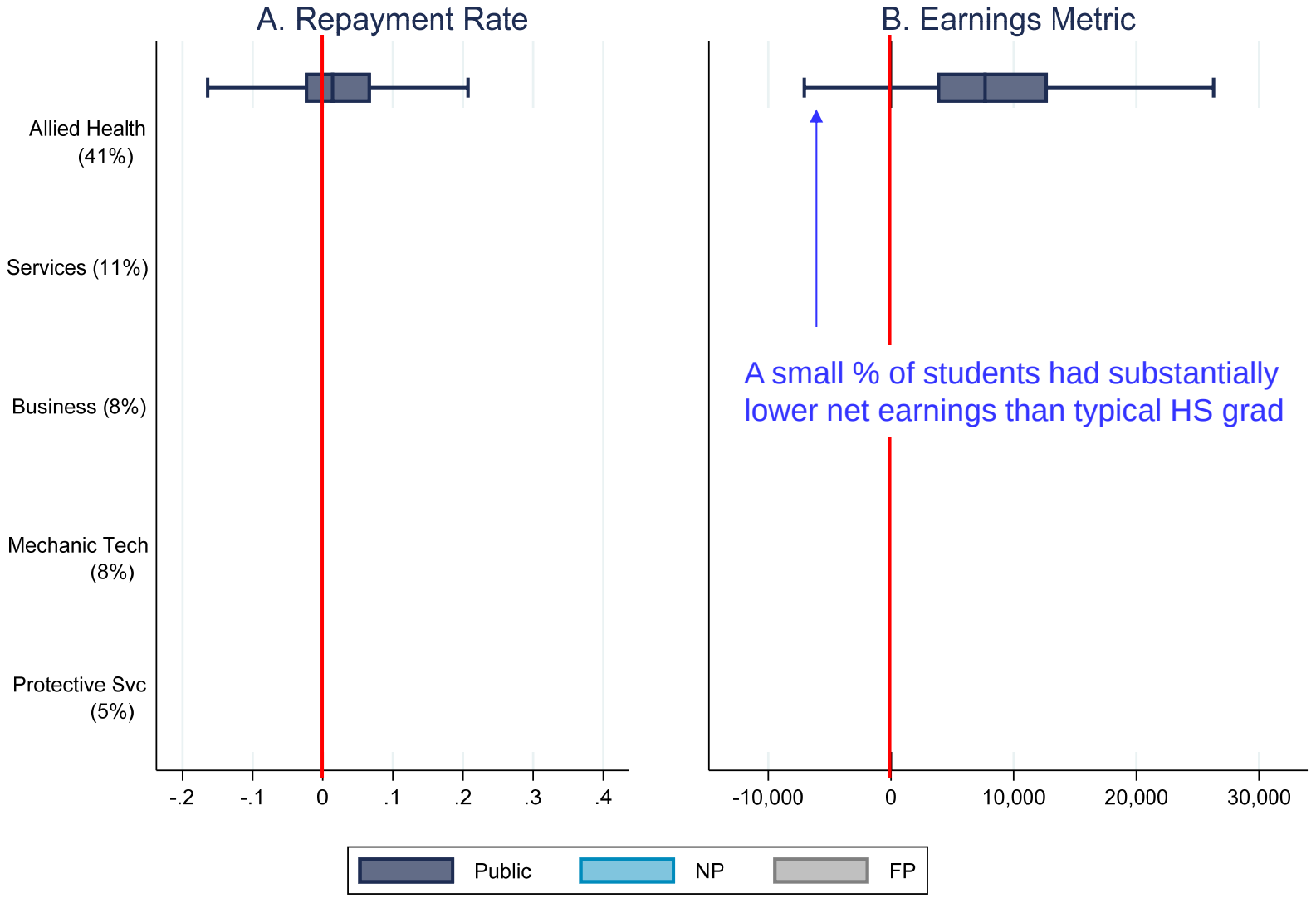
Undergraduate Certificate Programs

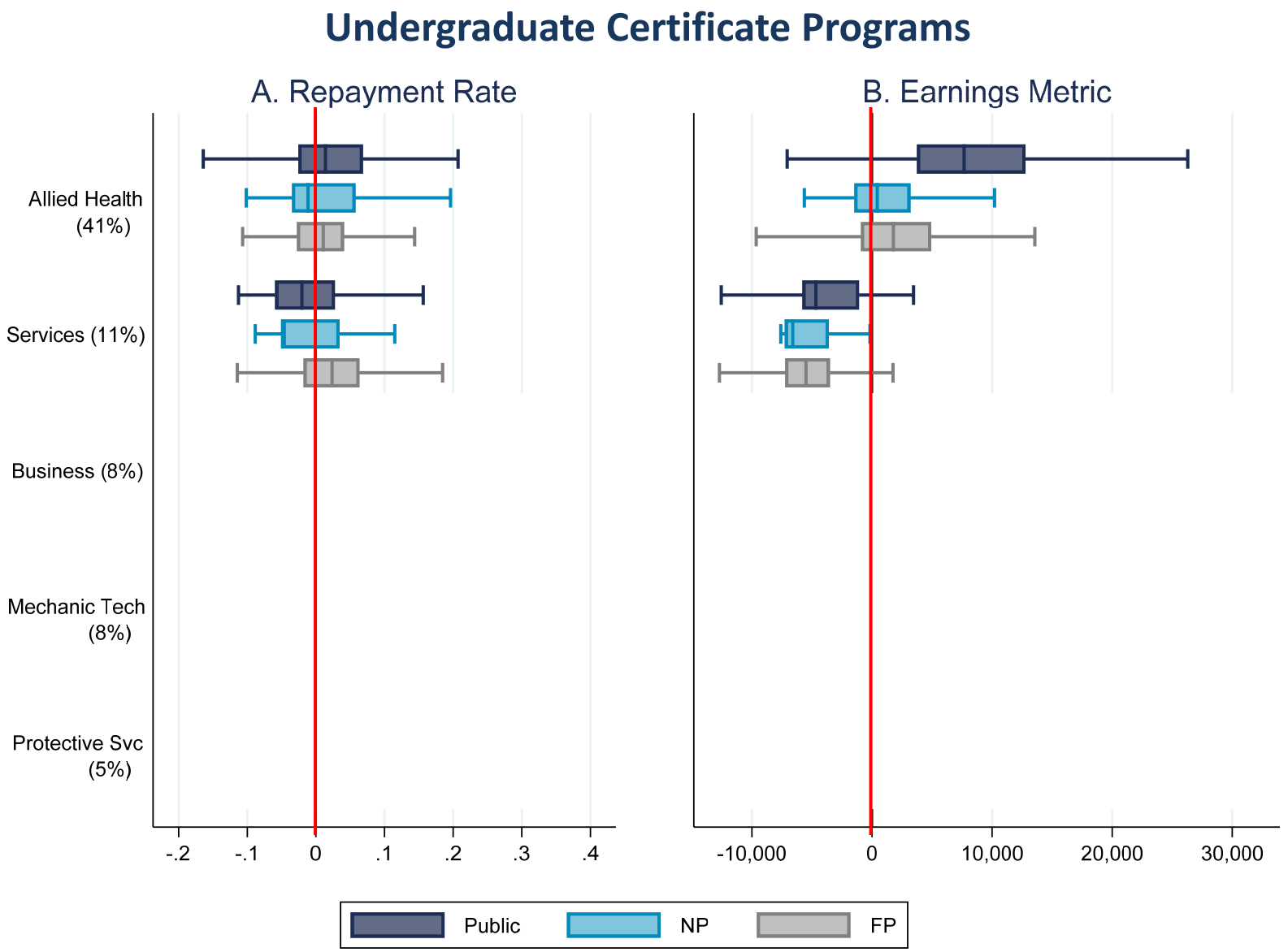


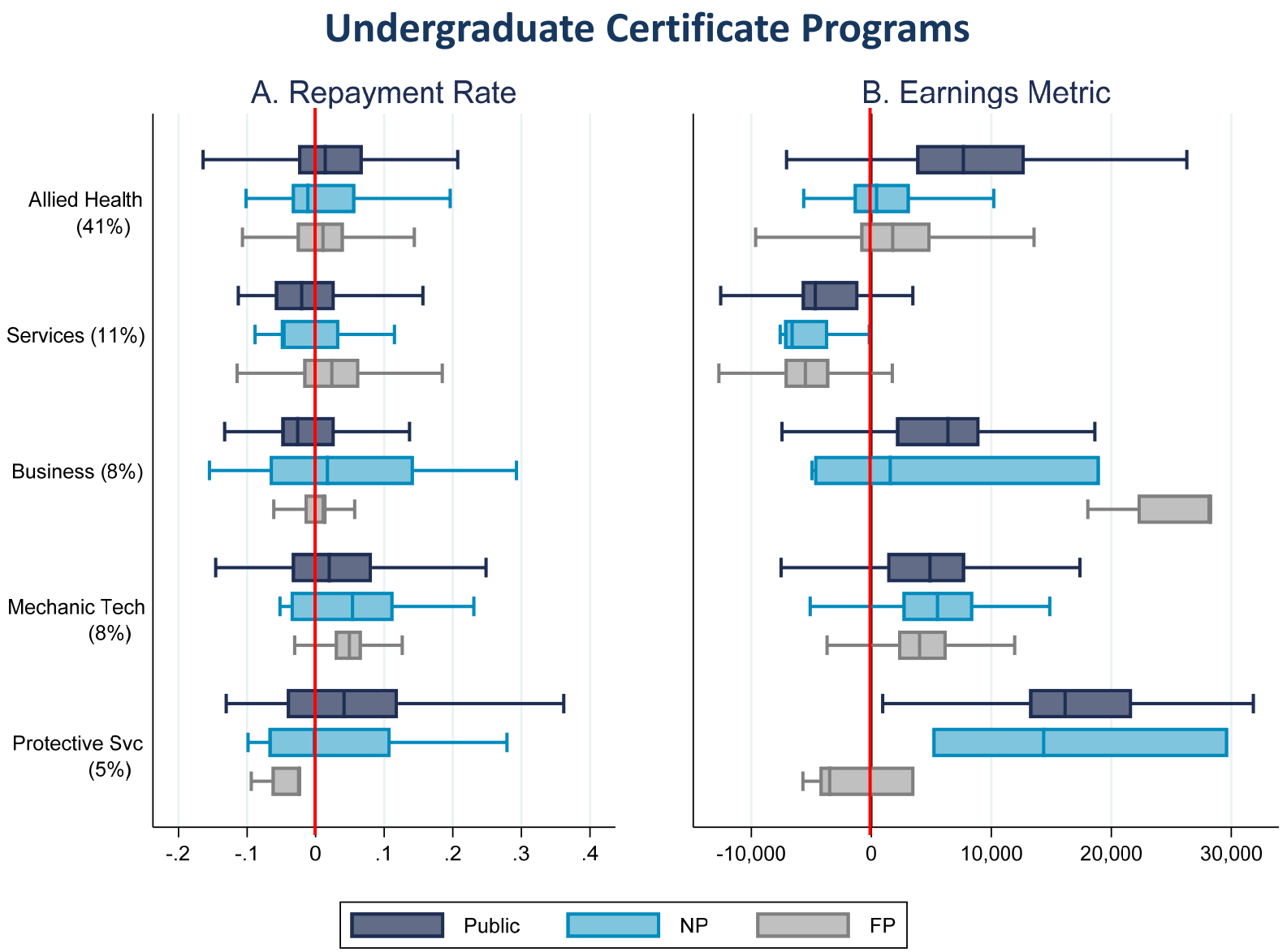
Undergraduate Certificate Programs



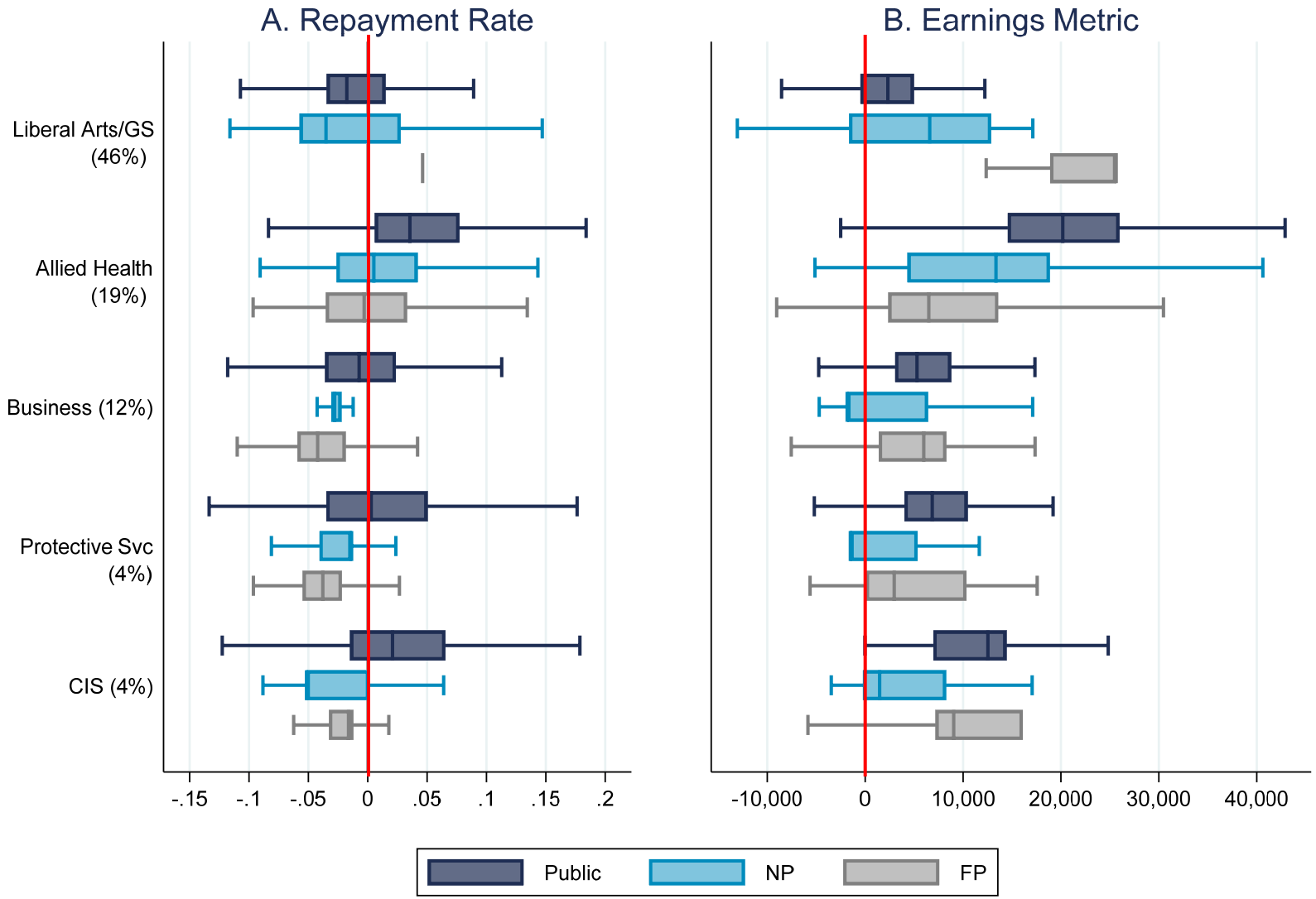
Undergraduate Certificate Programs



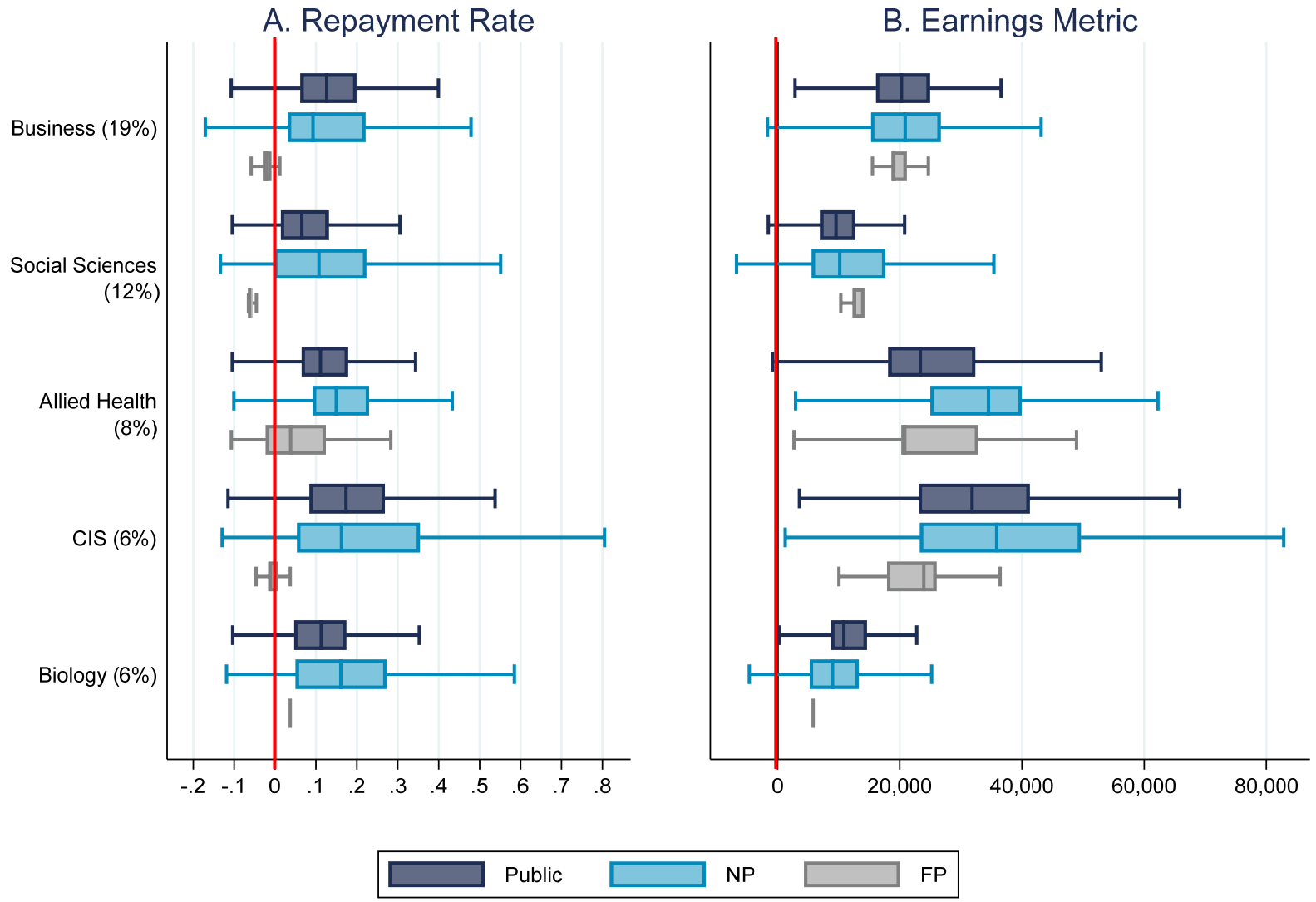

Undergraduate Certificate Programs
A. Repayment Rate
B. Earnings Metric
Allied Health (41%)
Services (11%)
Business (8%)
Mechanic Tech (8%)
Protective Svc (5%)
-.2
-.1
0
.1
.2
.3
.4
-10,000
0
10,000
20,000
30,000
Public
NP
FP


Undergraduate Certificate Programs
A. Repayment Rate
B. Earnings Metric
Allied Health (41%)
Services (11%)
Business (8%)
Mechanic Tech (8%)
Protective Svc (5%)
-.2
-.1
0
.1
.2
.3
.4
-10,000
0
10,000
20,000
30,000
Public
NP
FP

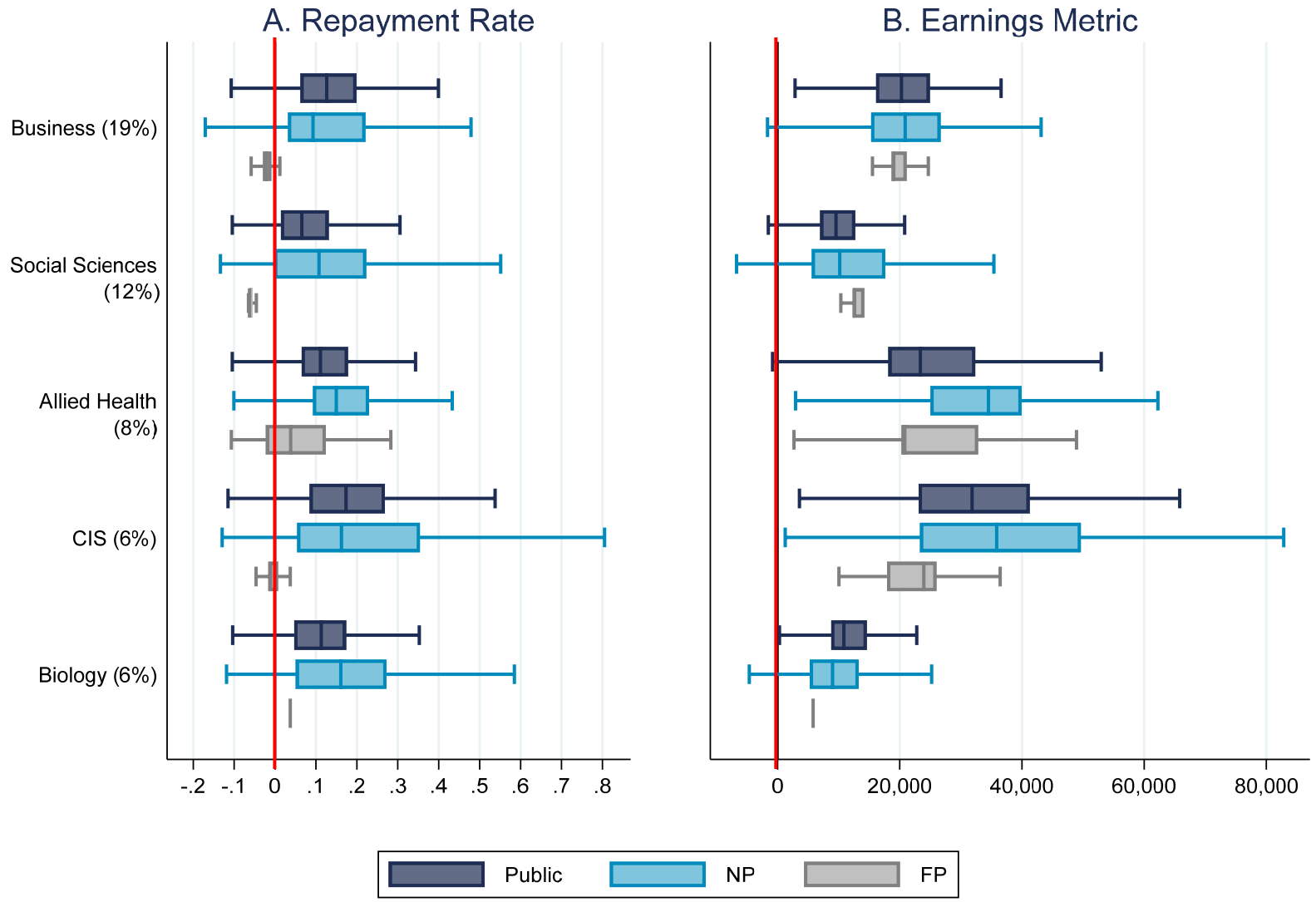
Undergraduate Associate Degree Programs



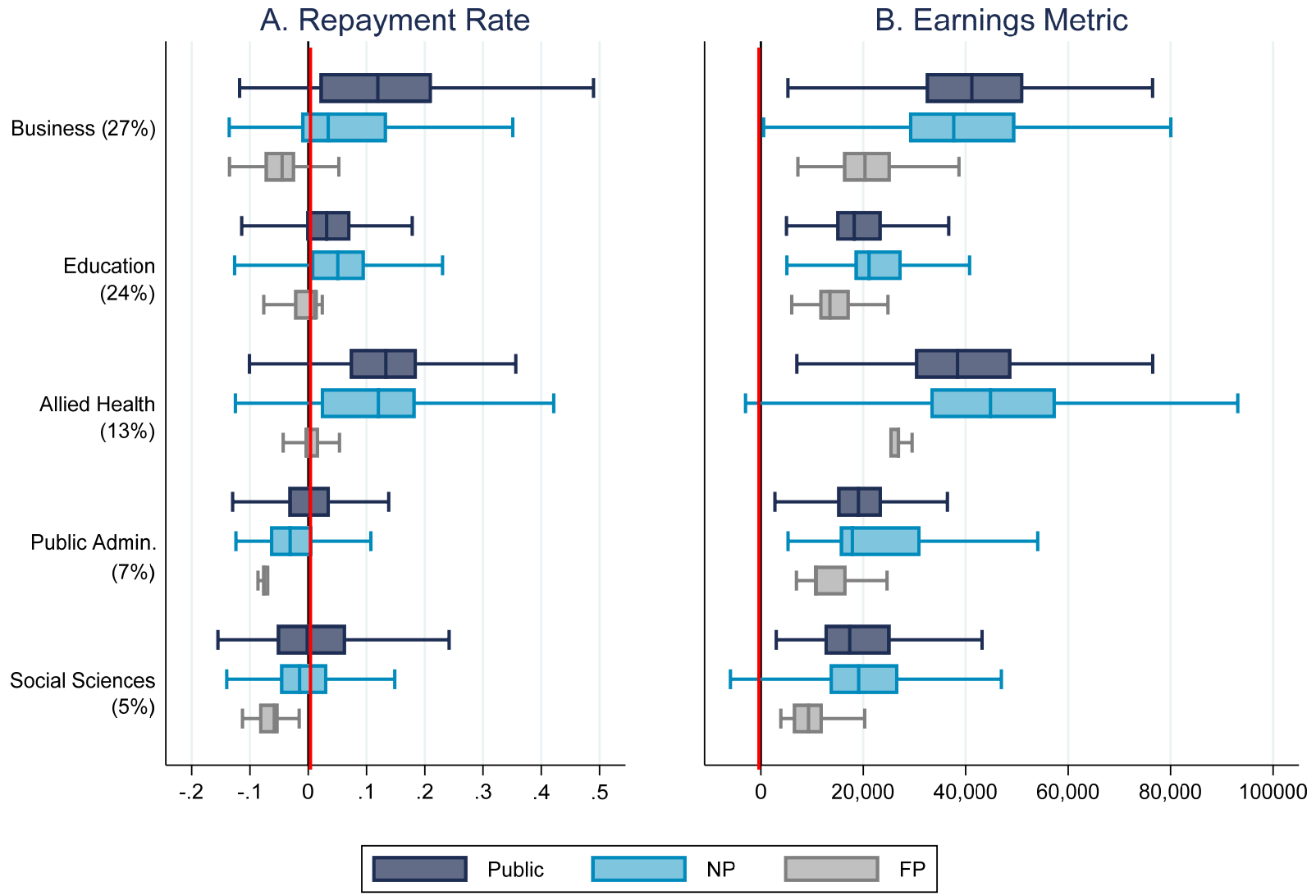
Undergraduate Bachelor's Degree Programs



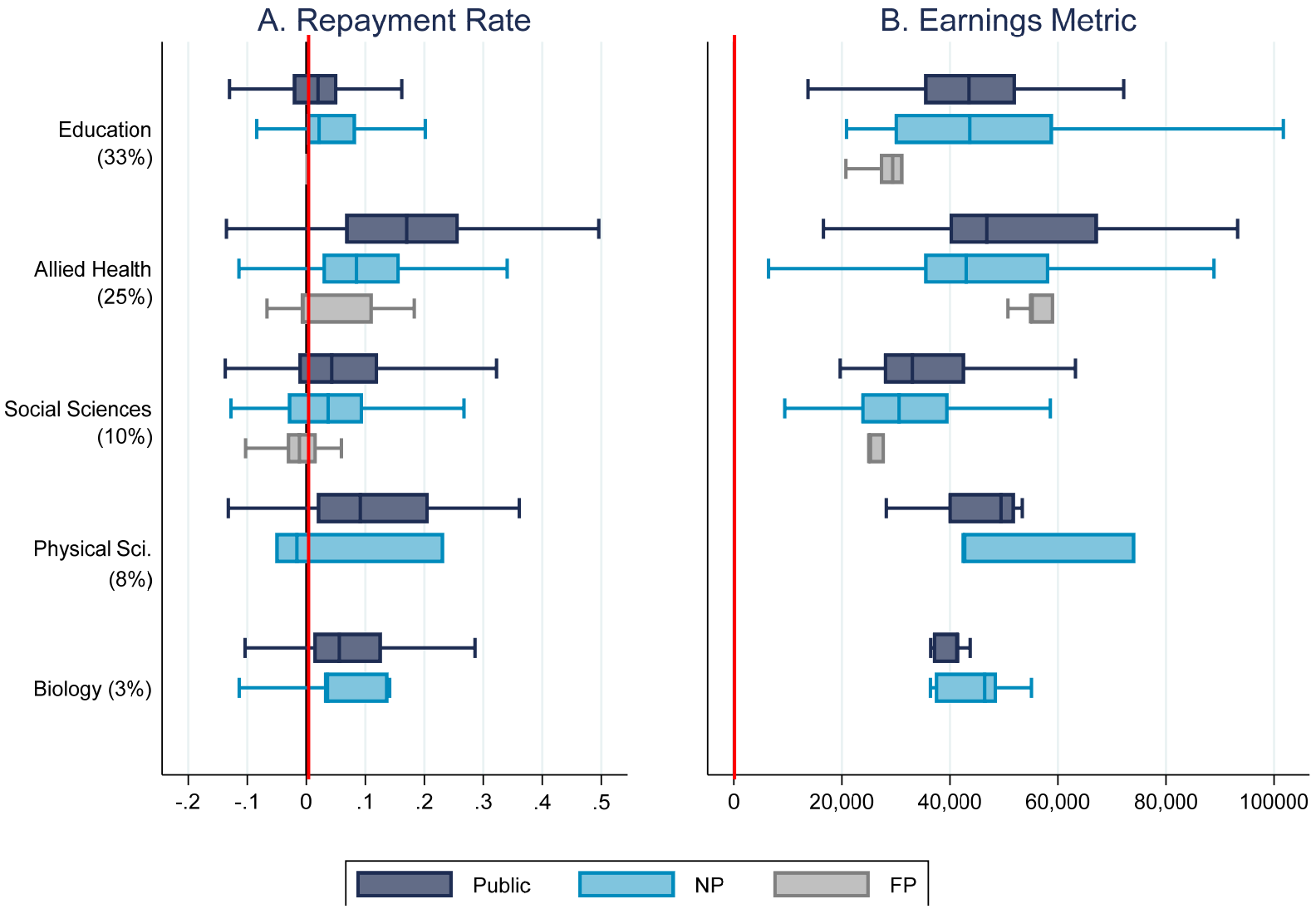
Undergraduate Bachelor's Degree Programs

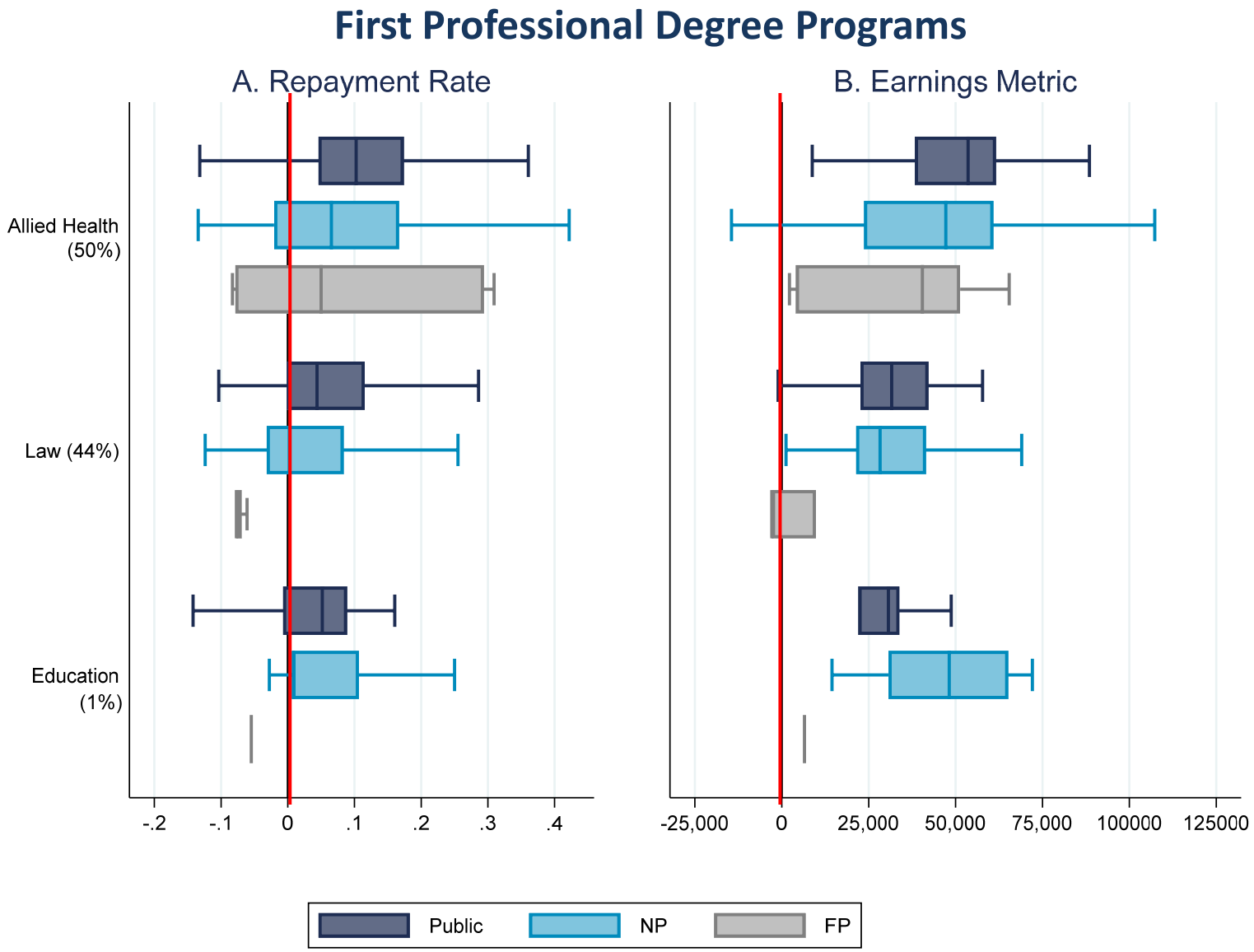


Master's Degree Programs



Doctoral Degree Programs




First Professional Degree Programs
A. Repayment Rate
B. Earnings Metric
Allied Health (50%)
Law (44%)
Education (1%)
-.2
-.1
0
.1
.2
.3
.4
-25,000
0
25,000
50,000
75,000
100000
125000
Public
NP
FP