Post-Secondary Employment Outcomes

Using National Jobs Data to Measure Graduate Impacts

Andrew Foote

Senior Economist, LEHD

U.S. Census Bureau

Post-Secondary Employment Outcomes (PSEO)
A new collaboration between university systems and the Census Bureau

A joint pilot project between university systems, state longitudinal data systems, and the Census Bureau, the **Post-Secondary Employment Outcomes (PSEO)** are experimental tabulations providing national earnings statistics for graduates of post-secondary institutions.

Goal:

- Provide students and parents better data on the return on investment of and employment destinations for post-secondary degrees

Meeting a Data Need

There is a great deal of interest in making the economic returns to higher education more transparent.

- Institutions want to know how their graduates are doing after they leave campus

- Students want to know how much a degree could increase their earning potential, and whether or not borrowing for college is a sound investment.

- Policy makers/economic/workforce development specialists want to better understand the role of higher education in regional economic development.

Comparison with other initiatives

College Scorecard:

- Obama administration initiative to promote transparency in returns to college
- Data on earnings by institution, for enrollees who received financial aid
- *Shortcomings*: No program level data, not broken out by whether student graduated with a degree

State-level initiatives

- Lots of state higher education boards and university systems have partnered with their workforce agencies to match UI data to university records
- Publically available data from these projects vary, but many release institution or program level data
- *Shortcomings*: Earnings captured only for graduates that remain in the state, no universal methodology makes comparing earnings across programs difficult

PSEO Output Tables

- Graduate Earnings Table
  - 25th, 50th, and 75th percentiles of annual earnings for college and university graduates
  - By degree level, degree major, and post-secondary institution
  - One year, five years, and 10 years after graduation
- Employment Flows Table
  - Employment by industry sector and Census Division of the country
  - By degree level, degree major, and post-secondary institution
  - One year, five years, and 10 years after graduation

Post-Secondary Employment Outcomes (PSEO)
Can compare short run vs long run returns to degree

Initial Earnings and Earnings Growth 10 Years After Degree:
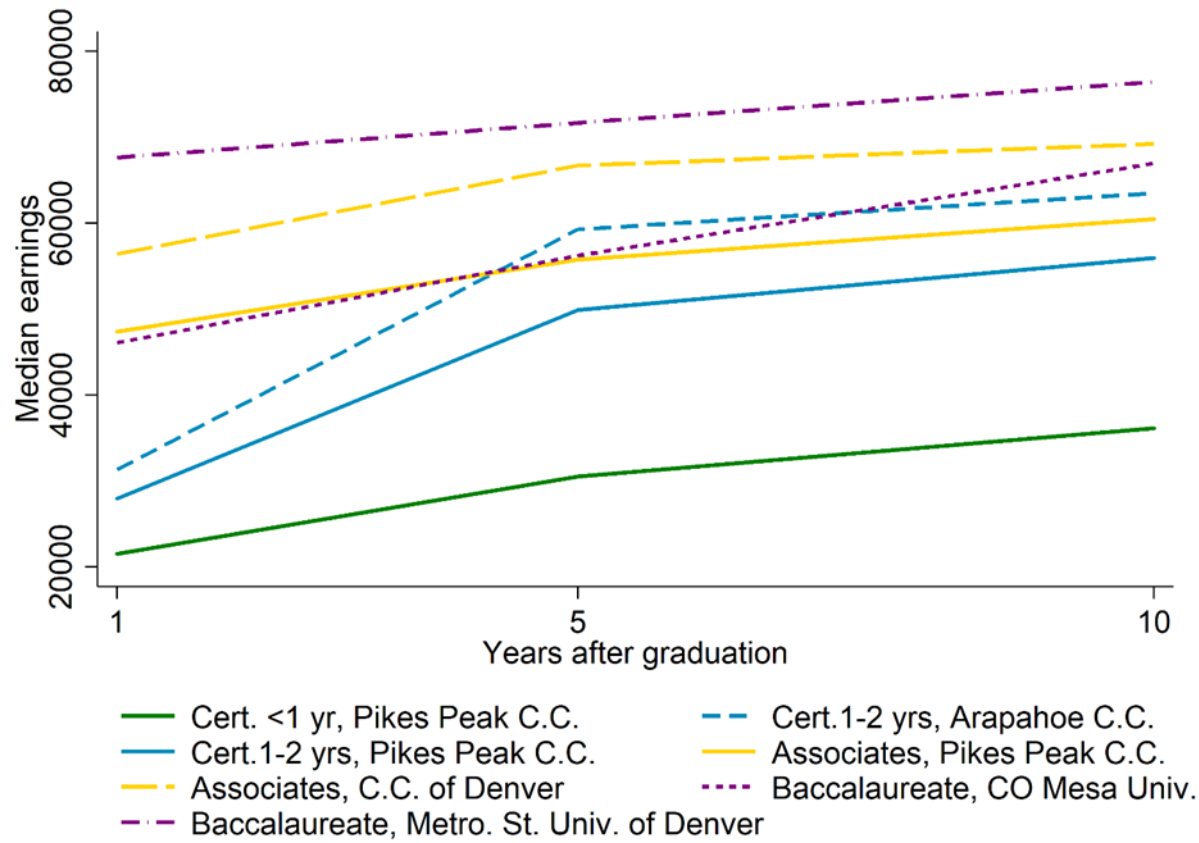University of Texas at Austin Graduates
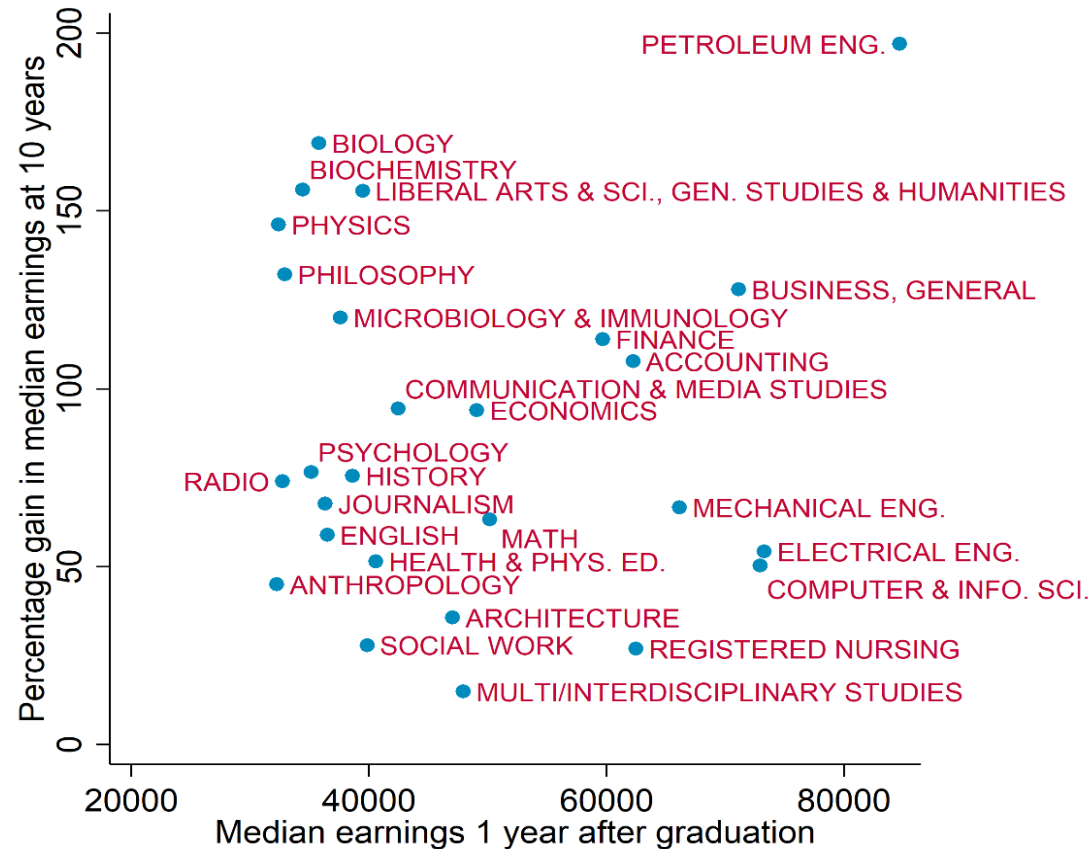
Source: U.S. Census Bureau, Post-Secondary Employment Outcomes (PSEO) data for the 2001-2003 graduate cohort of University of Texas at Austin. Select majors. Earnings are in 2016 dollars.

6

Post-Secondary Employment Outcomes (PSEO)
Can compare similar degrees across institutions

Earnings Outcomes for Different Types of Nursing Degrees
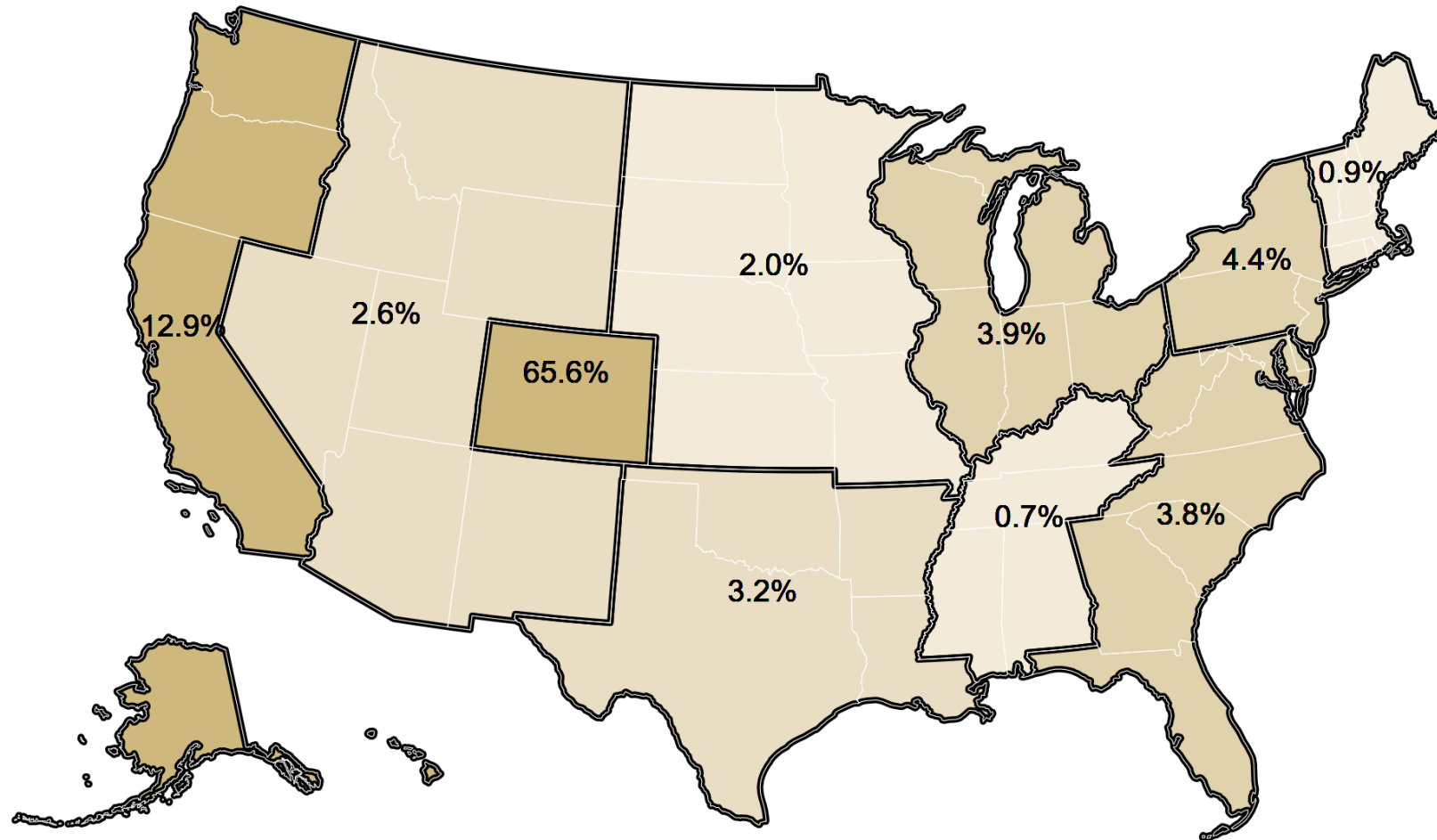for Graduates from Selected Institutions in Colorado

Source: U.S. Census Bureau, Post-Secondary Employment Outcomes (PSEO) data for 2001-
2003 graduation cohort from selected programs in Colorado. Earnings are in 2016 dollars.

University of Texas, Austin
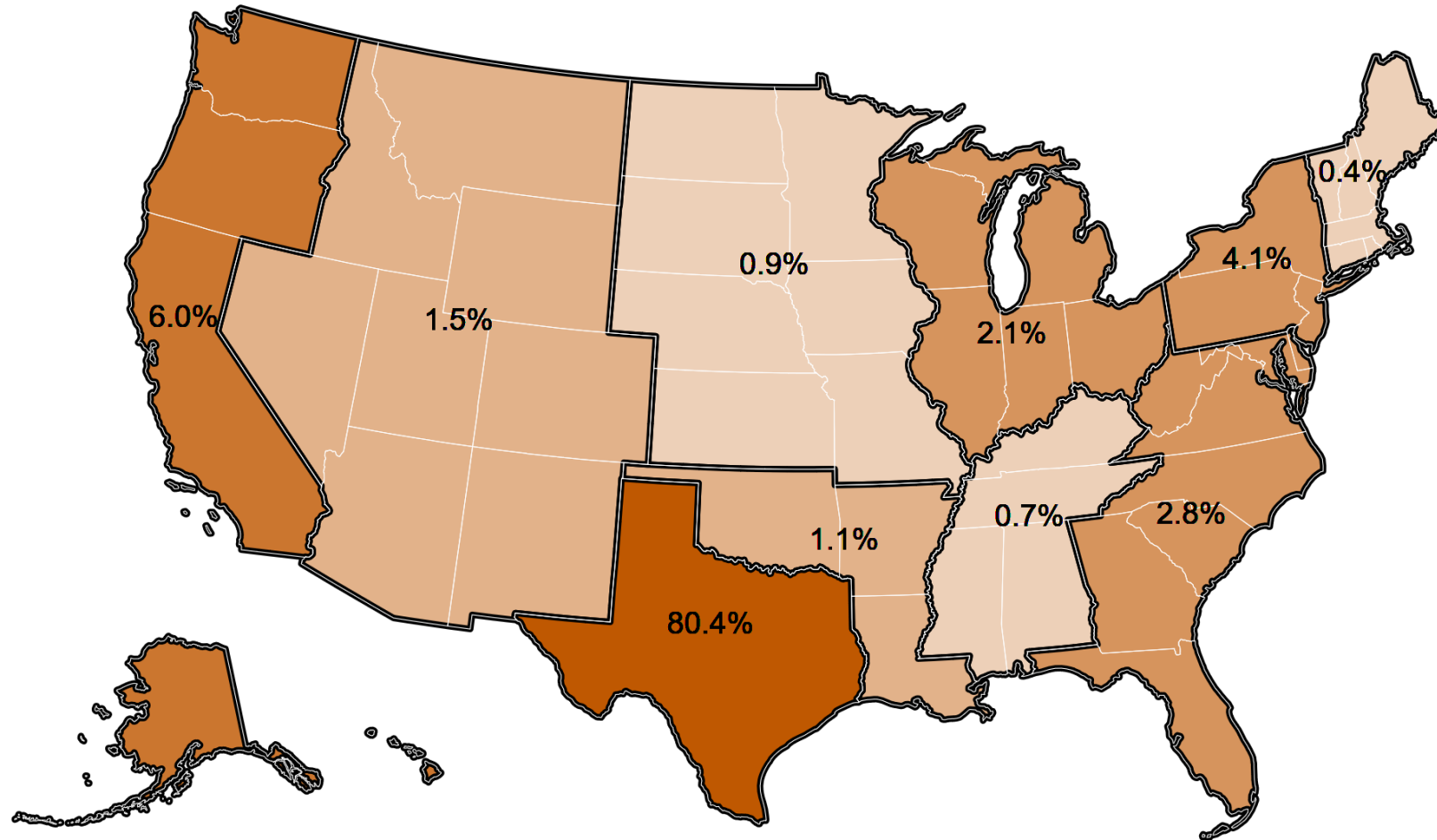
University of Wisconsin Madison
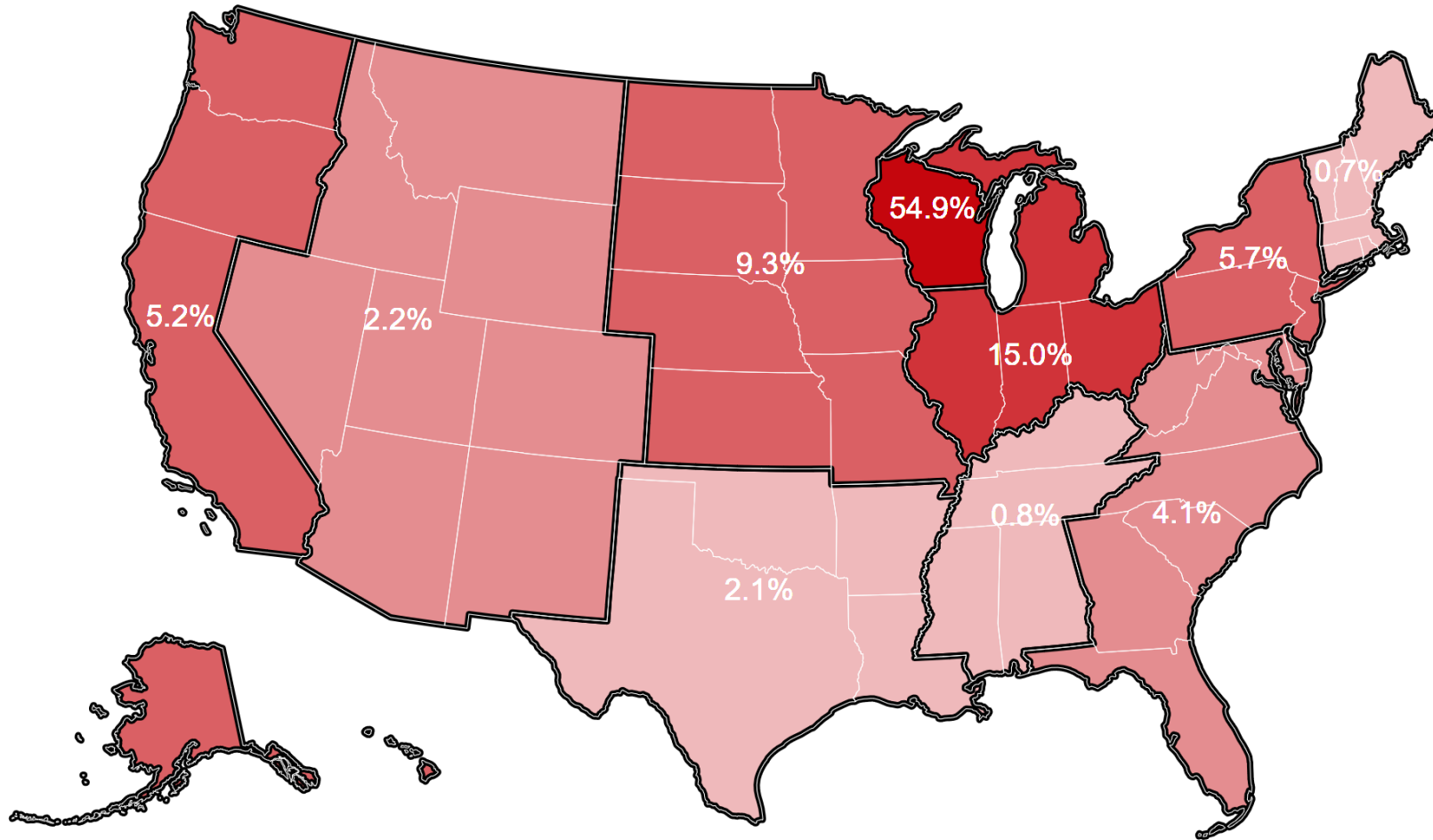
University of Michigan – Ann Arbor
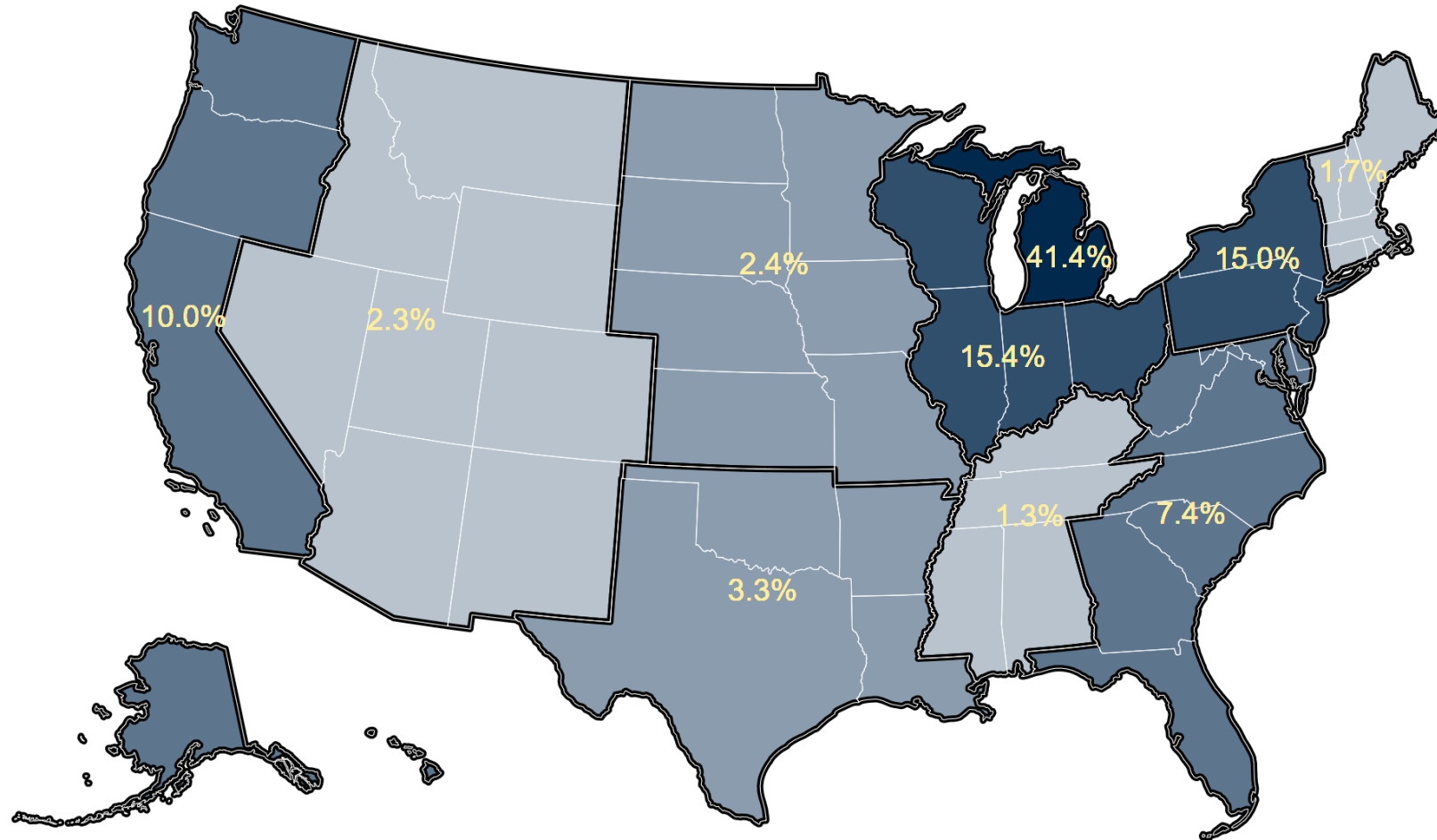
Current Partners

Currently partnering with Census for the PSEO pilot are:

- The University of Texas System
- Colorado Department of Higher Education (all public two- and four-year institutions in Colorado)
- University of Michigan, Ann Arbor; University of Wisconsin, Madison.

Currently in talks to expand pilot to public four-year institutions and community colleges in seven states, with a longer queue after that.

Next Steps

- Incorporate W2 and 1099 data to improve earnings data coverage
- Expand number of participating institutions
- Data visualization tool for the Employment Flows tables

Outcomes Resulting from The University of Texas System and the United States Census Bureau Partnership

David R. Troutman, Ph.D., Associate Vice Chancellor

University of Texas System

Office of Institutional Research and Analysis

Higher Education Environment

- Value of a degree
- Return on investment (ROI)
- Rising cost of education
  - Student debt

Bachelor's degree	$25,000
UT System Bachelor's degree*	$21,698

UT System
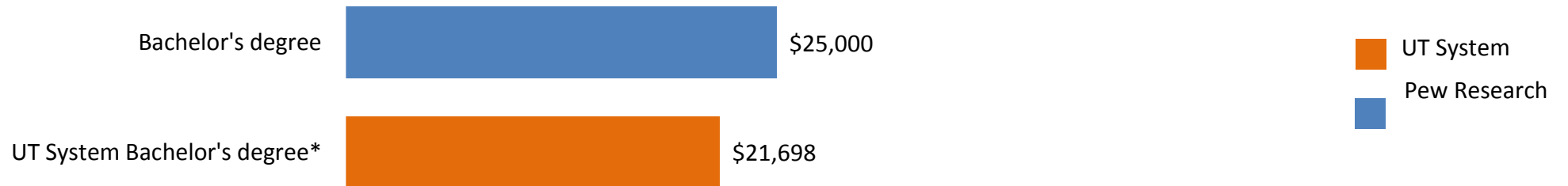
Pew Research

Sources: FADS and Pew Research Center analysis of Federal Reserve Board's 2016 Survey of Household Economics and Decisionmaking.
*First-time students who entered in academic years 2002-2015

UT System's Partnership with the U.S. Census Bureau

UT System's Solution –

THE UNIVERSITY *of* TEXAS SYSTEM

seek UT®

What Is seekUT?

- seekUT is a free, online consumer tool developed with the input of students for students

  – Shows a 10-year data span of earnings in the context of average loan debt, by program

  – Offers the ability to compare earnings and debt by various programs side-by-side

  – Goes beyond the median to show percentiles

  – Indicates the percent of students who continue their education beyond baccalaureate degree

STUDENTS ▾   RESOURCES ▾   ABOUT ▾

FOLLOW YOUR PASSION

REAL GRADUATES   REAL EARNINGS   REALISTIC EXPECTATIONS

UNDERGRAD

Explore Results   Explore Results

+GRAD

Explore Results   Explore Results

+ MEDICAL

Explore Results   Explore Results

Reset

To get started select field(s) and institution that interests you below. Use the tabs on the right to explore other sections of the report. Use reset buttons to start over.

Note: If there are not enough data points for selected items, no graph will appear.

Step 1) Select Field(s) of Interest

Multiple selections	∨

Step 2) Select Institution

UT Austin	∨

Reset

Click button to start over ->

About the Data

Summary	Earnings by Percentile	Debt to Income	National Earnings Trend	Other Reports

How much do UT graduates earn nationally, and how much do they owe in student loans? How much do earnings vary for UT graduates with the same major?

UT Austin

1st-, 5th-, 10th-Year Median Earnings and Median Loan

● 1st-Year Median Earnings ● 5th-Year Median Earnings ● 10th-Year Median Earnings ● Median Loan

Accounting And Related Services: $58K, $89K, $124K, $23K
Biology, General: $35K, $54K, $85K, $25K
Economics: $53K, $72K, $97K, $25K

Major	For More Information
Accounting And Related Services	http://www.mccombs.utexas.edu/departments/accounting
Biology, General	https://cns.utexas.edu/students/degrees-majors-advising/majors#biology
Economics	https://liberalarts.utexas.edu/economics/

Reset
⟳

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Step 1) Select Field(s) of Interest

| Multiple selections | ⌄ |

Step 2) Select Institution

| UT Austin | ⌄ |

Reset

Click button to start over ->

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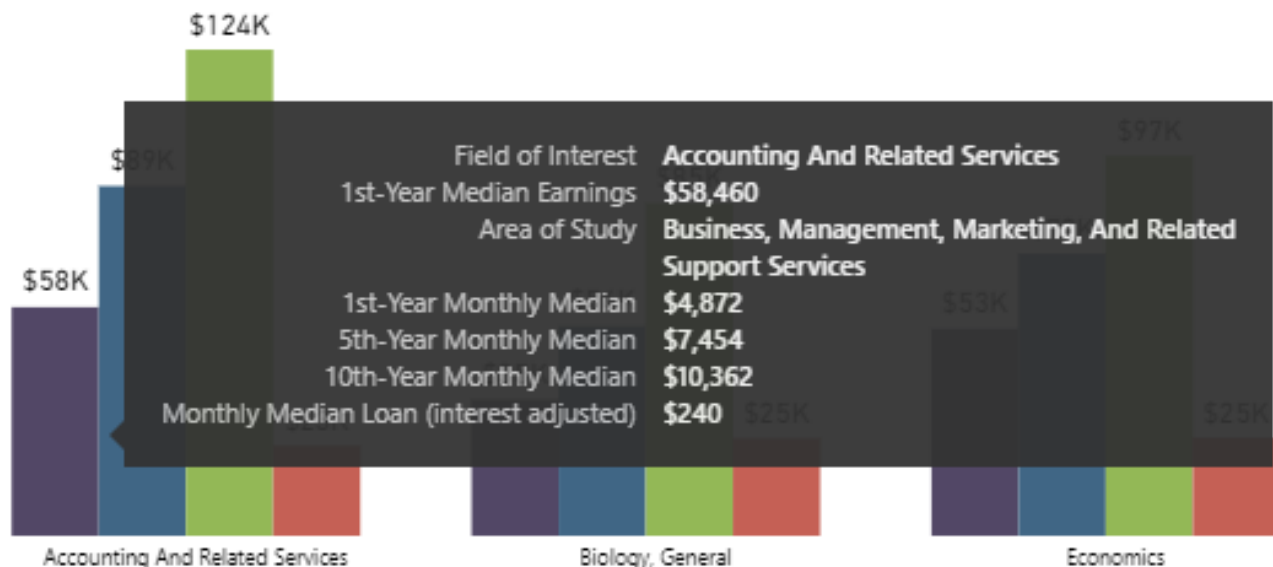| Summary | Earnings by Percentile | Debt to Income | National Earnings Trend | Other Reports |

How much do UT graduates earn nationally, and how much do they owe in student loans? How much do earnings vary for UT graduates with the same major?

UT Austin

1st-, 5th-, 10th-Year Median Earnings and Median Loan

● 1st-Year Median Earnings ● 5th-Year Median Earnings ● 10th-Year Median Earnings ● Median Loan

$124K

$89K

$97K

Field of Interest	**Accounting And Related Services**
1st-Year Median Earnings	**$58,460**
Area of Study	**Business, Management, Marketing, And Related Support Services**
1st-Year Monthly Median	**$4,872**
5th-Year Monthly Median	**$7,454**
10th-Year Monthly Median	**$10,362**
Monthly Median Loan (interest adjusted)	**$240**

$58K

$53K

$25K

$25K

Accounting And Related Services   Biology, General   Economics

Major	For More Information
Accounting And Related Services	http://www.mccombs.utexas.edu/departments/accounting
Biology, General	https://cns.utexas.edu/students/degrees-majors-advising/majors#biology
Economics	https://liberalarts.utexas.edu/economics/

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Step 1) Select Field(s) of Interest

Multiple selections ⌄

Step 2) Select Institution

UT Austin ⌄

UT Austin
Click button to start over ->   Reset ⟲

About the Data

Reset ⟲

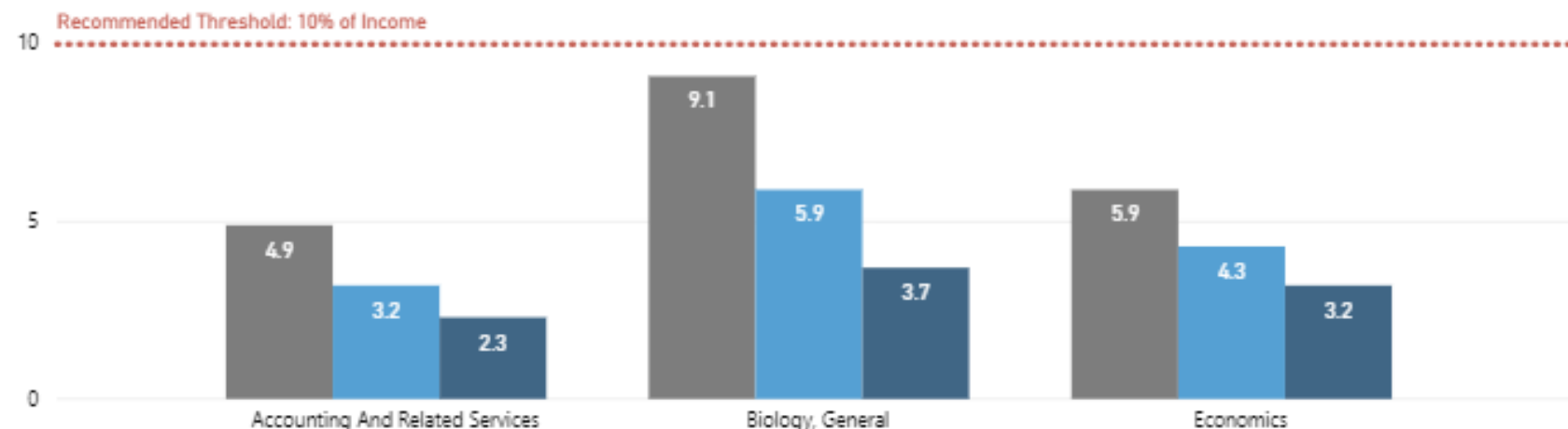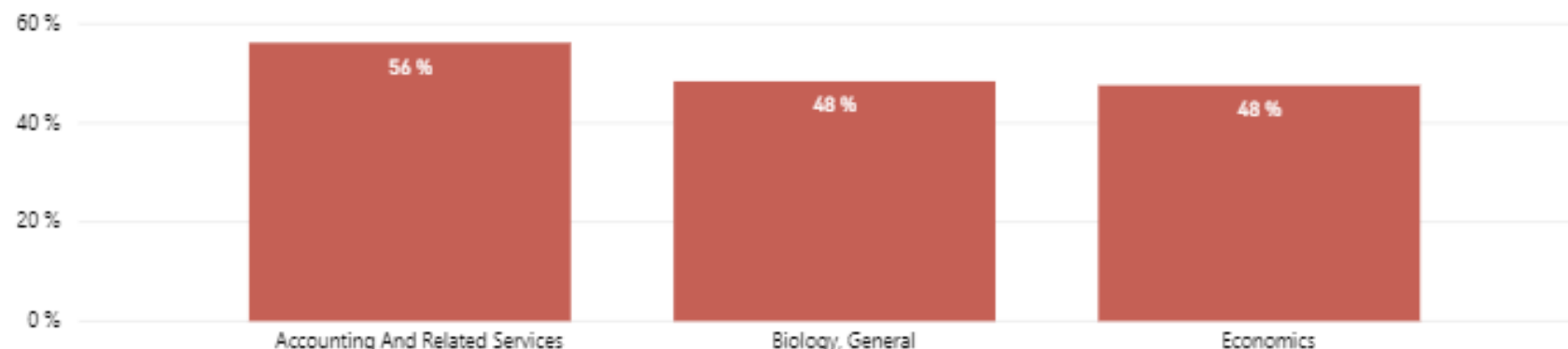| Summary | Earnings by Percentile | Debt to Income | National Earnings Trend | Other Reports |

Student Loan Payment as a Percent of Monthly Pre-Tax Salary at 1, 5, and 10 Years After Graduation

● Debt to Income Ratio After 1 Year ● Debt to Income Ratio After 5 years ● Debt to Income Ratio After 10 Years

Recommended Threshold: 10% of Income

10 ···

Accounting And Related Services: 4.9, 3.2, 2.3
Biology, General: 9.1, 5.9, 3.7
Economics: 5.9, 4.3, 3.2

5

0

Accounting And Related Services | Biology, General | Economics

Percent of First-Time College Students Who Took Out Loans

60 %

Accounting And Related Services: 56 %
Biology, General: 48 %
Economics: 48 %

40 %

20 %

0 %

Accounting And Related Services | Biology, General | Economics

To get started select area(s) of interest and institution that interests you below. Use the tabs on the right to explore other sections of the report. Use reset buttons to start over.

Note: If there are not enough data points for selected items, no graph will appear.

Step 1) Select Area(s) of Interest

All	⌄

Step 2) Select Institution
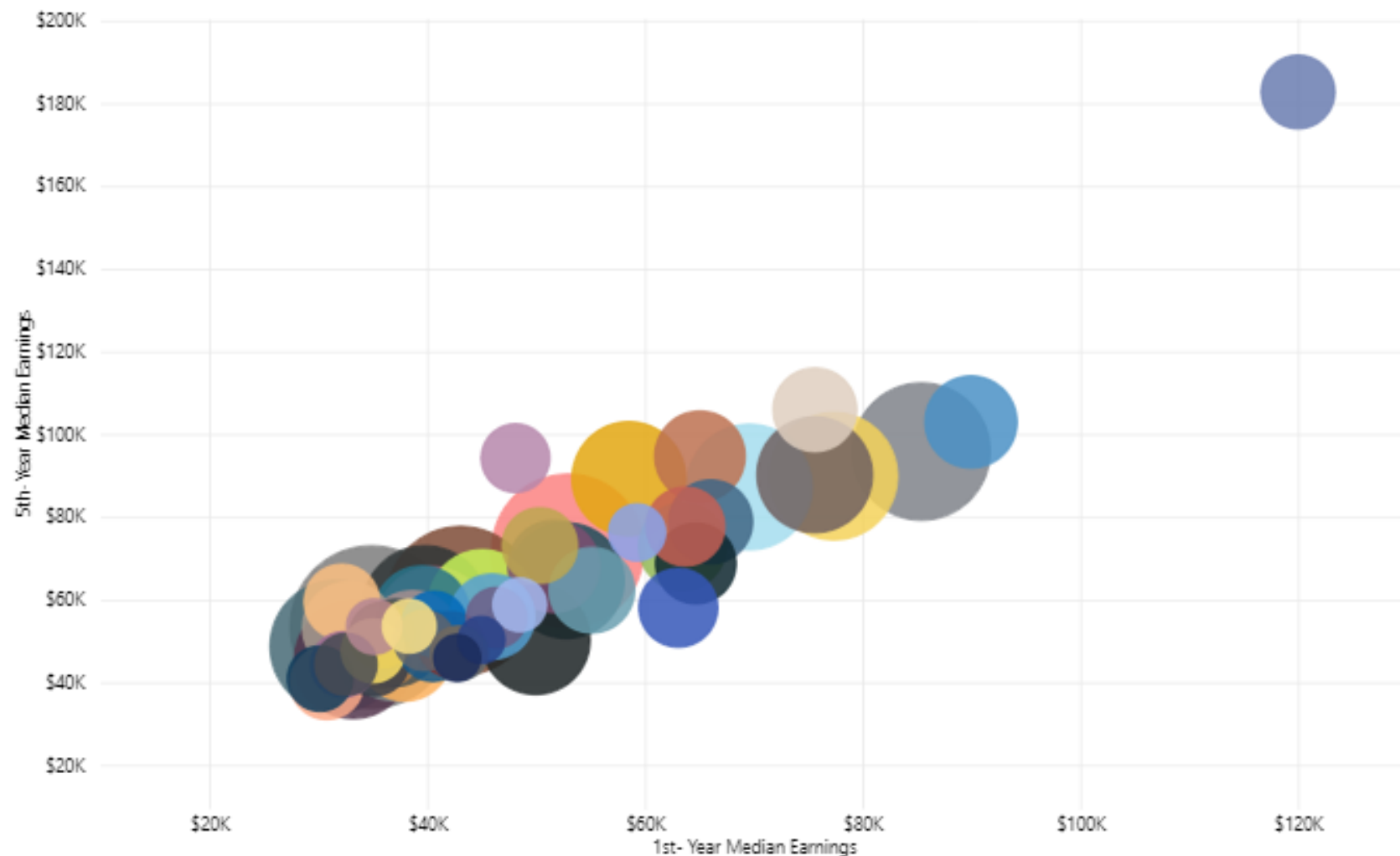
UT Austin	⌄

UT Austin

How to read this chart: Horizontal location (along the X-axis) shows first-year median earnings. Vertical location (along the Y-axis) shows fifth-year median earnings. Bubble size is the number of most recent graduates (2018) in that area. Color of bubble represents the degree major.

About the Data

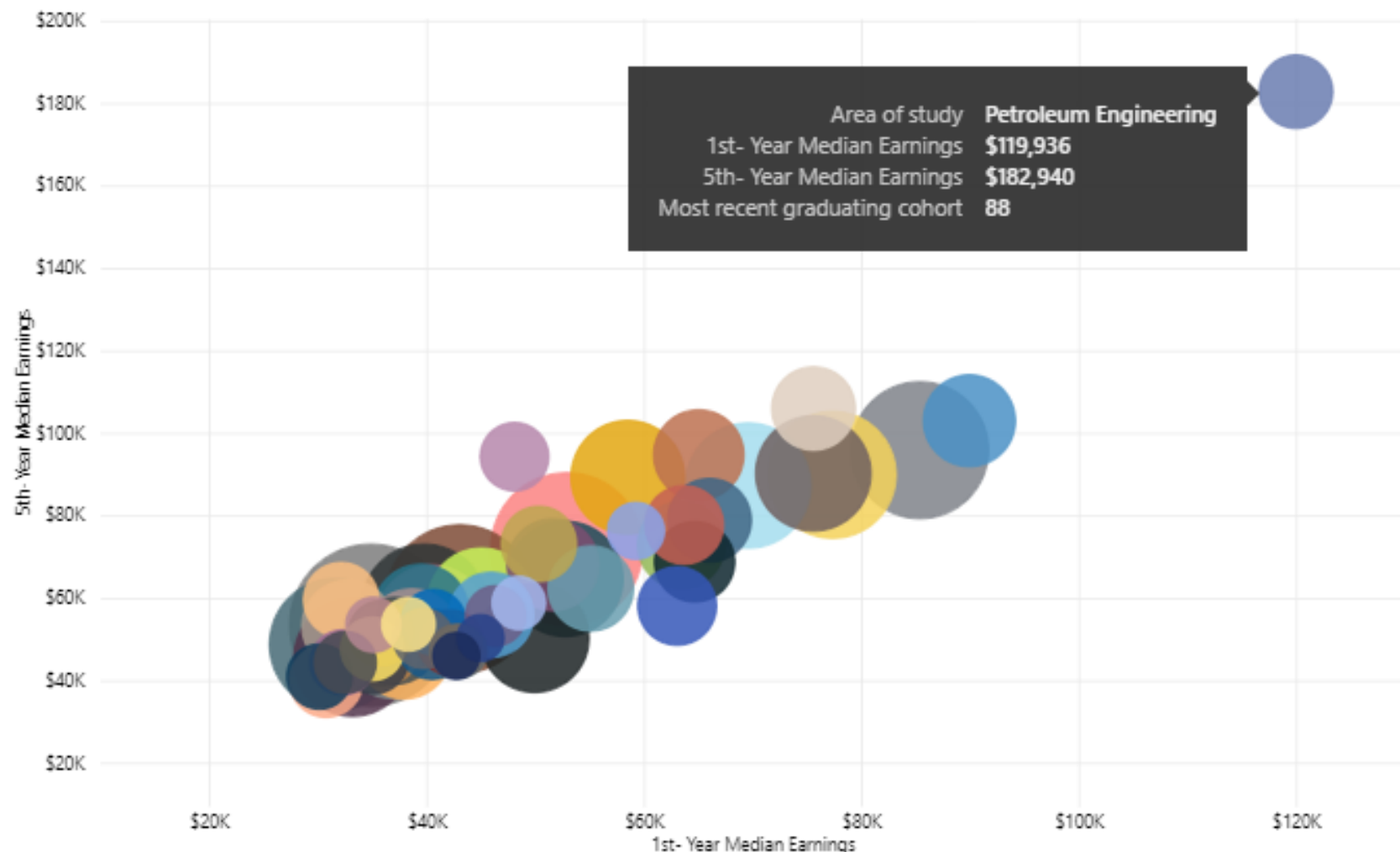Reset ↻

Summary	Earnings by Percentile	Debt to Income	National Earnings Trend	Other Reports

Median 1st-Year and 5th-Year Earnings Trends by Area of Study and Most Recent Graduates

Reset

| Summary | Earnings by Percentile | Debt to Income | National Earnings Trend | Other Reports |

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All

Step 2) Select Institution

UT Austin

UT Austin

How to read this chart: Horizontal location (along the X-axis) shows first-year median earnings. Vertical location (along the Y-axis) shows fifth-year median earnings. Bubble size is the number of most recent graduates (2018) in that area. Color of bubble represents the degree major.

About the Data

Median 1st-Year and 5th-Year Earnings Trends by Area of Study and Most Recent Graduates

Area of study	**Petroleum Engineering**
1st- Year Median Earnings	**$119,936**
5th- Year Median Earnings	**$182,940**
Most recent graduating cohort	**88**

5th-Year Median Earnings

$200K
$180K
$160K
$140K
$120K
$100K
$80K
$60K
$40K
$20K

$20K $40K $60K $80K $100K $120K

1st- Year Median Earnings

Follow Your Passion

Here are our alumni who did just that:

16 Women Scientists at UT Health Science Center at San Antonio

Following a Passion, Pursuing a Career – 16 Women Scientists at UT Health Science Center at San Antonio

Get to know 16 women scientists at the University of Texas Health Science Center at San Antonio (UTHSCSA) and learn what inspired them to follow their passion and pursue a career in science.

Photo Credit: Noell Vidaurri

Read More

Rebecca Thompson

Four Generations of Medicine – It's in Her DNA

Rebecca Thompson graduated from McGovern Medical School at The University of Texas Health Science Center at Houston (UTHealth) in 2018. The calling came a little later for Rebecca, age 32, who previously pursued a career as an engineer before realizing that medicine was in her blood, too. She followed her passion and continues a four-generation-strong family legacy.

Photo Credit: UTHealth, Maricruz Kwon

Read More

Jesus Castellano

Don't Give Up and Stay Humble

Jesus Castellano, who graduated in 2018 with an economics major in the College of Liberal Arts, is the first person in his immediate family to attend and even apply to college. Castellano talks about his transformative experiences at UT Austin, as well as looks ahead to his new position at Google in Ann Arbor, Michigan.

Photo Credit: UT News

Read More

EMPLOYMENT OUTCOMES

UT AUSTIN BACCALAUREATES

COLLEGE: ENGINEERING

ABOUT THE GRADUATES

	Years (2000-2009)	Years (2010-2013)
Number of Students in Cohort	8753	4159
% Female	22.50%	21.10%
% Underrepresented Minority	14.60%	16.50%
% Receiving Pell Grants	23.00%	25.20%
	(2004-2009)	(2010-2013)
% who were First Time In College	77.10%	77.70%
Years to Degree (median)	4	5

Note: Information about bachelor's degree recipients as reported by UT Austin.

CONTINUING THEIR EDUCATION

	Years (2002-2009)	Years (2010-2013)
% who ever attended any additional school	43.50% | 33.90% in TX	26.30% | 17.00% in TX
% who received a degree/certificate (all levels)	41.90%	13.70%
Additional years enrolled (median)	2	1

Highest Degree Received (Graduating Cohorts 2002 to 2009)					
% Missing	Master's	MBA	Medical	Law	PhD
0.40%	15.80%	5.60%	2.10%	2.30%	4.20%

Note: Data comes from the National Student Clearinghouse.

TOP 3 INDUSTRIES WHERE GRADUATES WERE WORKING AFTER GRADUATION

Graduates found working in Texas from the Texas Workforce Commission (TWC). Industries as defined by North American Industry Classification System (NAICS, 2-digit). Note: Records do not include employer, so work "in field" cannot be verified. For some majors and industries the connection may be more obvious. More detail about match rates on the next page.

Year 1		Year 5		Year 10	
Professional Scientific and Technical Services	28.55%	Professional Scientific and Technical Services	30.64%	Professional Scientific and Technical Services	30.06%
Manufacturing	26.64%	Manufacturing	23.50%	Manufacturing	23.59%
Mining Quarrying and Oil and Gas Extraction	13.70%	Mining Quarrying and Oil and Gas Extraction	10.91%	Wholesale Trade	8.89%

EARNINGS AFTER GRADUATION

Gross wages of graduates found working in Texas for the equivalent of full time for a full year and not enrolled in school. Adjusted for inflation (in 2014 dollars).

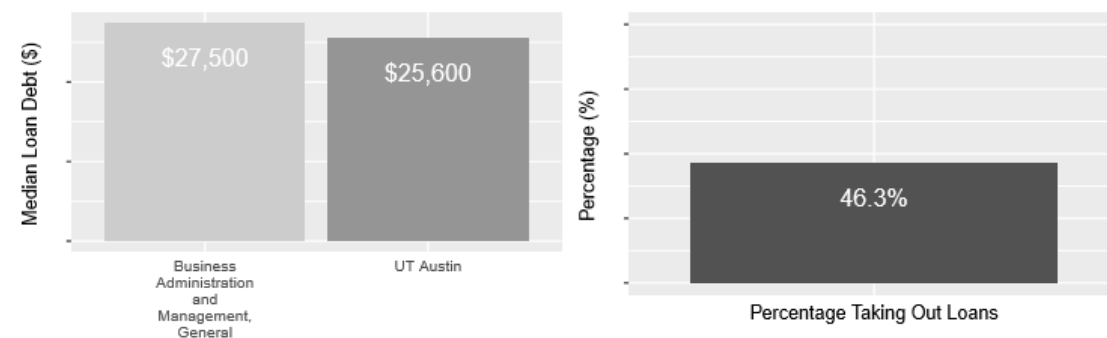|	25th Percentile	Median	75th Percentile
Year 1	$59,843	$69,859	$80,272
Year 5	$71,326	$85,414	$106,437
Year 10	$85,331	$107,608	$141,664

The Univesrsity of Texas at UT Austin - Business Administration and Management, General

What kinds of industries do graduates go into and how much are they earning? Most Higher Education institutions either survey their graduates or are simply unable to collect earnings information. In 2014, the Univestity of Texas System reached an agreement with the U.S. Census Bureau to share earnings and industry data. Since 2014, the UT System has dissemented that data through its interactive website, SeekUT https://seekut.utsystem.edu/, which allows any user to explore graudate earnings information. The purpose of this brief is to highlight the employment outcomes from the University of Texas at UT Austin.

EARNINGS AFTER GRADUATION, ADJUSTED FOR INFLATION

Earnings by Year and Percentile

1st Year: $36,100 / $51,700 / $62,200
5th Year: $44,200 / $61,200 / $87,700
10th Year: $55,300 / $83,700 / $118,400

Business Administration and Management, General

25th Percentile   Median   75th Percentile
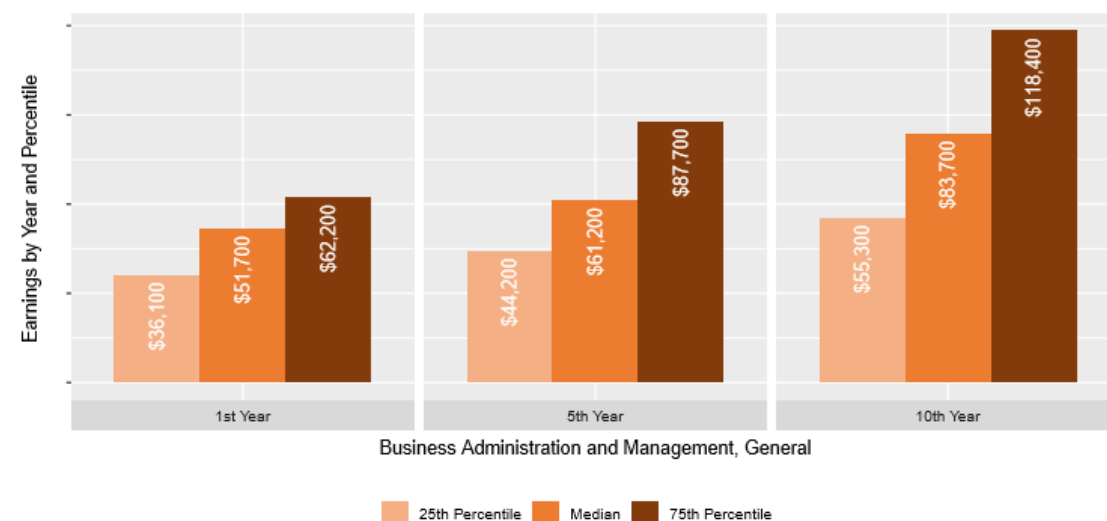
MEDIAN LOAN DEBT AND PERCENTAGE OF STUDENTS WHO TAKE OUT LOANS

Median Loan Debt ($)

Business Administration and Management, General: $27,500
UT Austin: $25,600

Percentage (%): 46.3%

Percentage Taking Out Loans

Important Additional Data Uses

Graduate Migration

FINDINGS

- **60% of all degree recipients at academic institutions** and **64% of all degree recipients at health institutions** are found working in Texas after one-year

Academic Institutions

Total (All Degrees)	In-state	Out-of-state	Unknown
1-year	60%	14%	26%
5-years	54%	16%	30%
10-years	54%	18%	28%

■ In-state ■ Out-of-state ■ Unknown

Health Institutions

Total (All Degrees)	In-state	Out-of-state	Unknown
1-year	64%	20%	16%
5-years	57%	20%	23%
10-years	57%	21%	23%

■ In-state ■ Out-of-state ■ Unknown
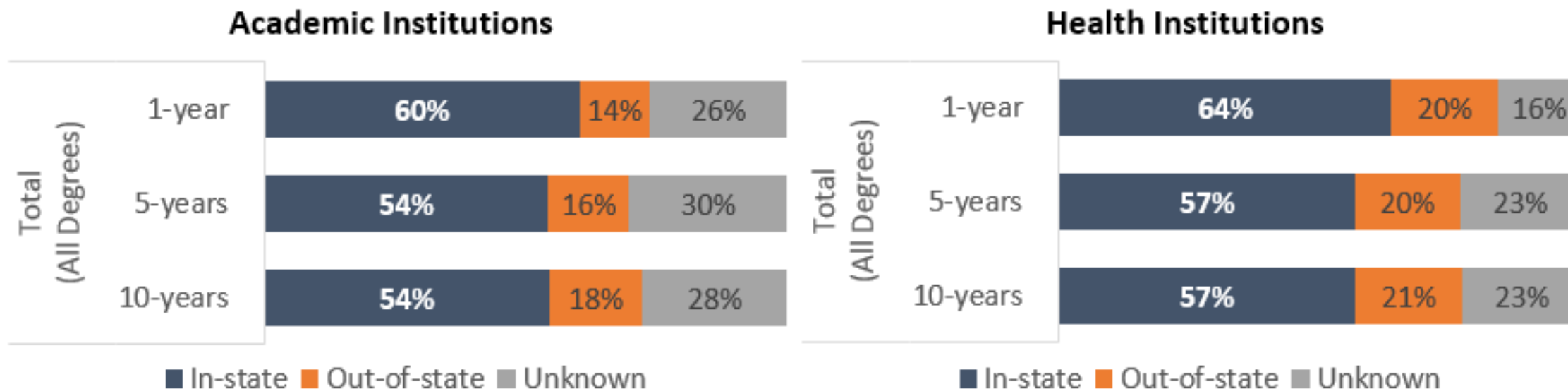
Percentage of Graduates Found Working In-State, Out-of-State, or Unknown
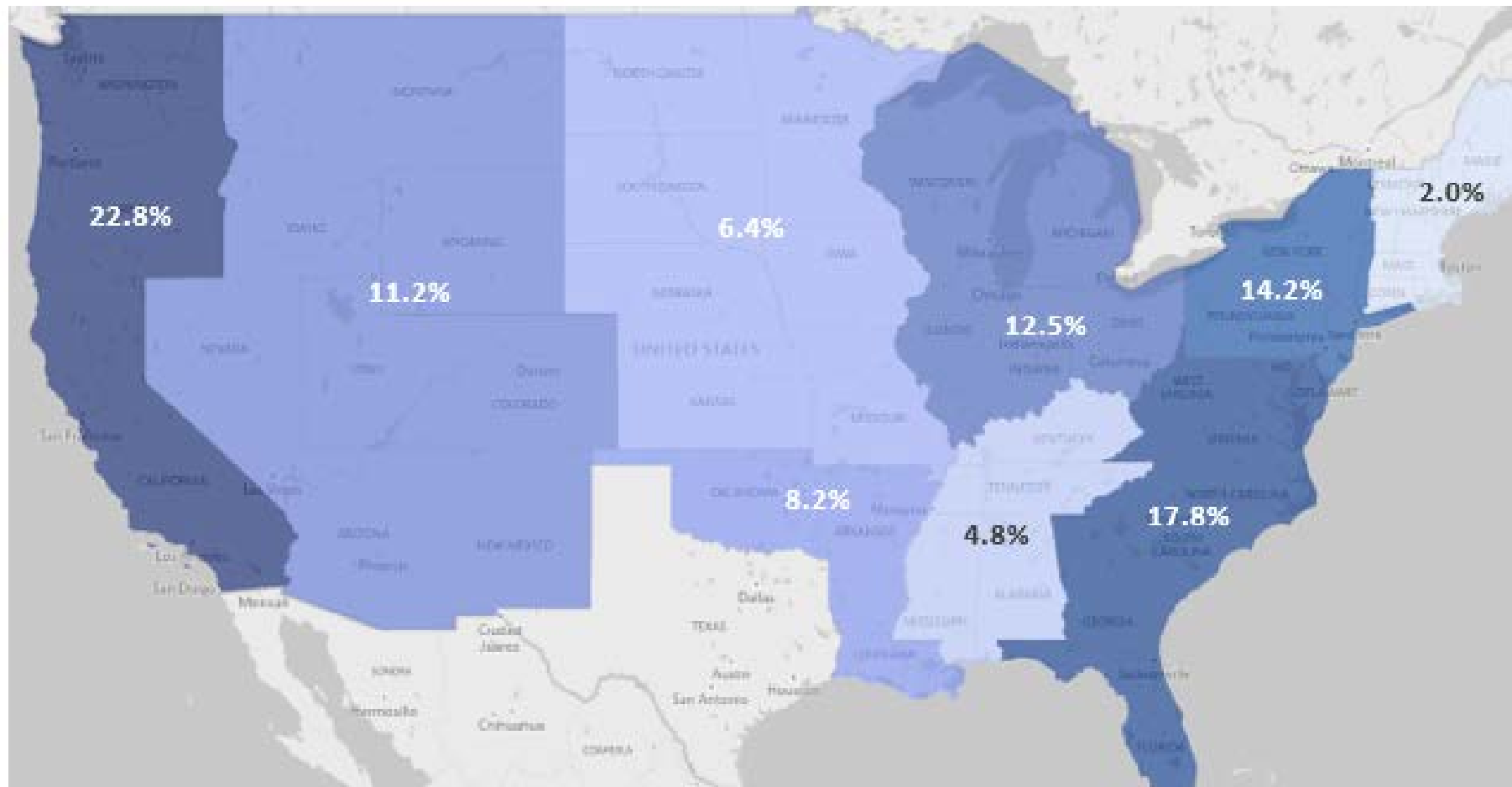
Academic Institutions
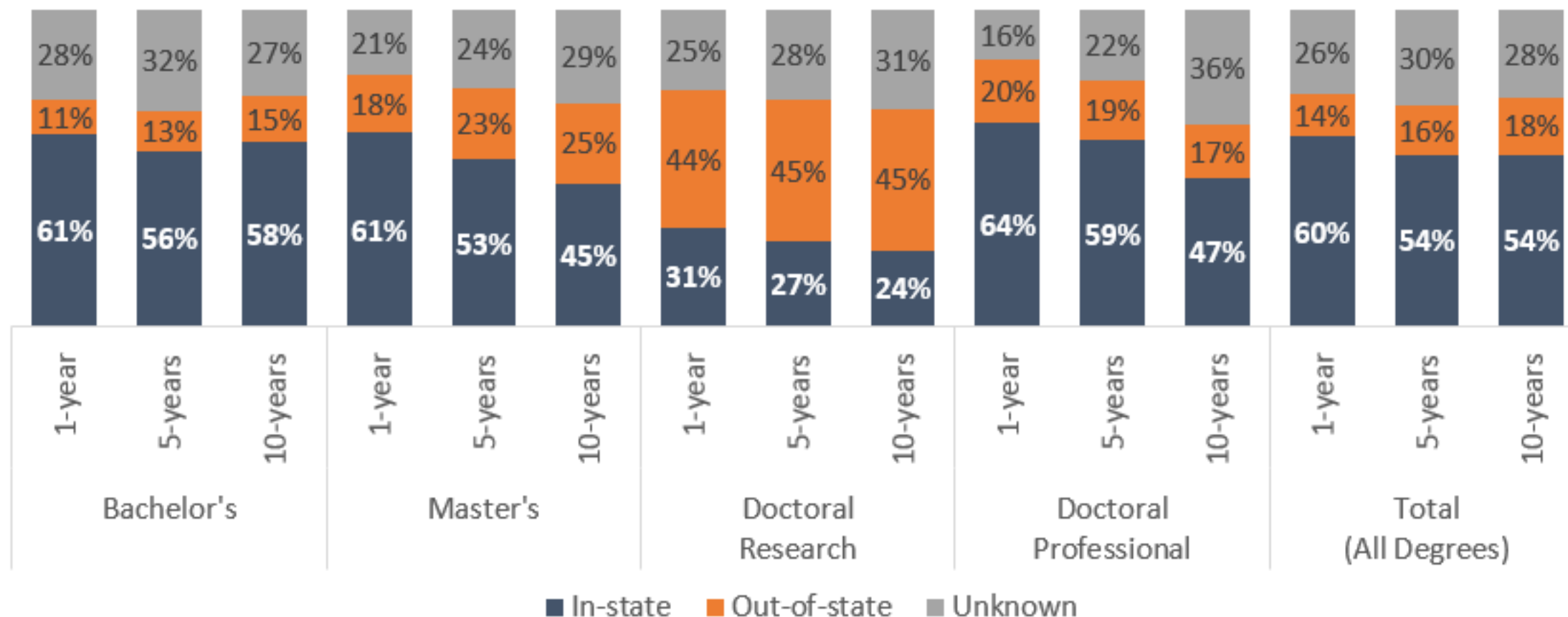
Health Institutions
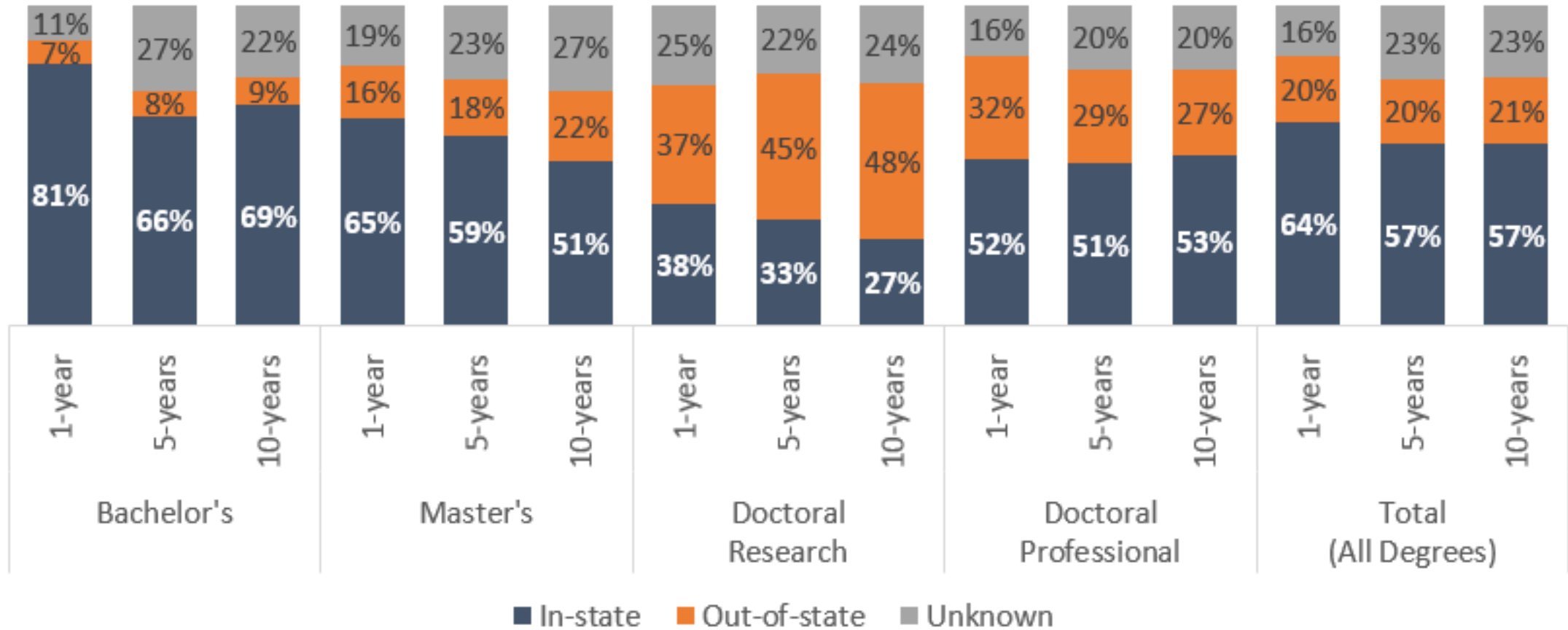
Where are graduates found working (excluding Texas) by region after one year?
Darkest (most) to lightest (least)
Excludes unclassified graduates

UT System bachelor's degree holders who stay in Texas 1, 5 and 10 years after graduation by institutions
(excludes Unclassified students)

Institution	1-year In-State %	In-State	Out-of-State	5-years In-State %	In-State	Out-of-State	10-years In-State %	In-State	Out-of-State
UTMB	93.9%	3,949	255	91.9%	2,379	211	89.4%	1,146	136
UTHSCSA	92.0%	4,273	371	89.7%	2,548	294	90.4%	1,220	129
UTHSCH	92.0%	3,065	268	90.8%	1,483	150	86.8%	526	80
UTRGV	91.2%	22,885	2,207	89.6%	17,004	1,984	87.0%	7,766	1,161
UTSA	89.8%	34,949	3,952	87.8%	23,868	3,303	87.1%	11,098	1,648
UTA	88.0%	43,007	5,860	85.4%	25,815	4,430	84.1%	11,857	2,245
UTD	87.7%	19,916	2,806	81.8%	13,497	3,010	81.5%	5,940	1,350
UTEP	83.7%	20,946	4,076	81.8%	14,649	3,270	78.3%	6,365	1,767
UTSWMC	83.6%	499	98	77.8%	466	133	90.3%	297	32
UTT	83.6%	10,217	2,011	82.1%	6,553	1,426	85.2%	2,927	510
UTMDA	83.5%	755	149	85.4%	293	50	56.6%	60	46
UT-Austin	80.4%	69,327	16,952	74.4%	50,590	17,363	72.3%	25,842	9,907
UTPB	77.0%	4,766	1,424	78.1%	3,194	896	78.9%	1,395	373

Regions outside of Texas with the most graduates who are working 1-, 5-, 10-years after graduation by Institution

Excludes unclassified graduates

	Highest Region 1-year	Highest Region 5-year	Highest Region 10-year
UT-Austin	Pacific Division	Pacific Division	Pacific Division
UTA	South Atlantic Division	South Atlantic Division	South Atlantic Division
UTSA	South Atlantic Division	South Atlantic Division	South Atlantic Division
UTEP	Mountain Division	Mountain Division	Mountain Division
UTD	South Atlantic Division	Pacific Division	Pacific Division
UTRGV	South Atlantic Division	South Atlantic Division	South Atlantic Division
UTT	South Atlantic Division	South Atlantic Division	South Atlantic Division
UTPB	South Atlantic Division	South Atlantic Division	South Atlantic Division
UTHSCSA	South Atlantic Division	South Atlantic Division	Pacific Division
UTMB	Pacific Division	Pacific Division	Pacific Division
UTHSCH	South Atlantic Division	Pacific Division	Pacific Division
UTMDA	South Atlantic Division	Pacific Division	East North Central, Pacific, South Atlantic
UTSWMC	South Atlantic Division	South Atlantic Division	East North Central
Overall	**Pacific Division**	**Pacific Division**	**Pacific Division**

Value of Higher Education

Communicating Value to Policymakers - National
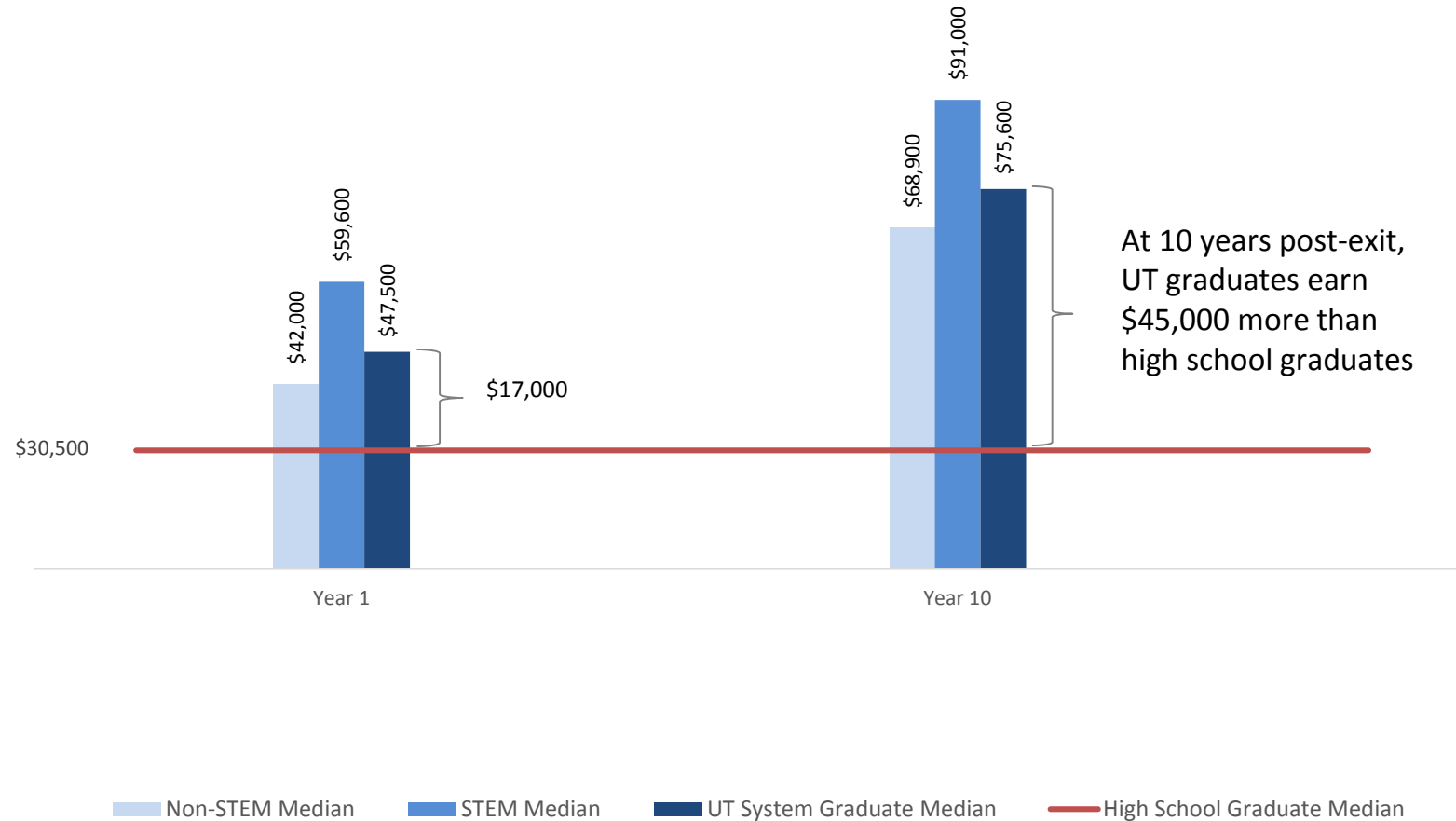
$91,000

$68,900

$75,600

$59,600

$42,000

$47,500

At 10 years post-exit, UT graduates earn $45,000 more than high school graduates

$17,000

$30,500

Year 1

Year 10

■ Non-STEM Median   ■ STEM Median   ■ UT System Graduate Median   — High School Graduate Median

Monitoring Program Performance - National

- For UT System baccalaureate programs
  - 92% have debt-to-income ratio of 10% or less – 1 year after graduation
  - 99% have debt-to-income ratio of 10% or less – 5 years after graduation

UT System Baccalaureate Programs Debt to Income Ratio - 1-Year, National
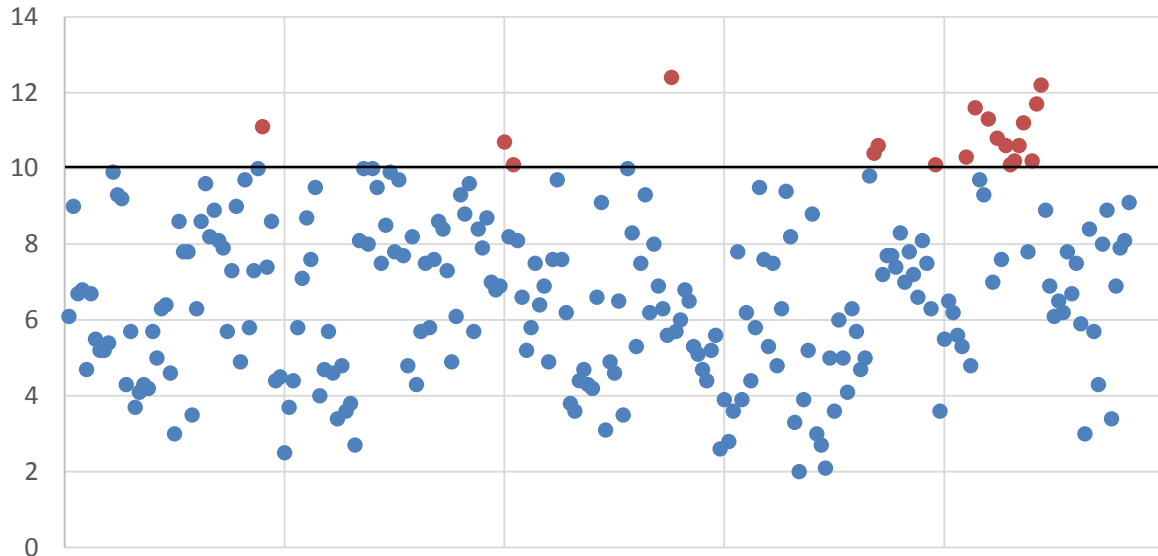
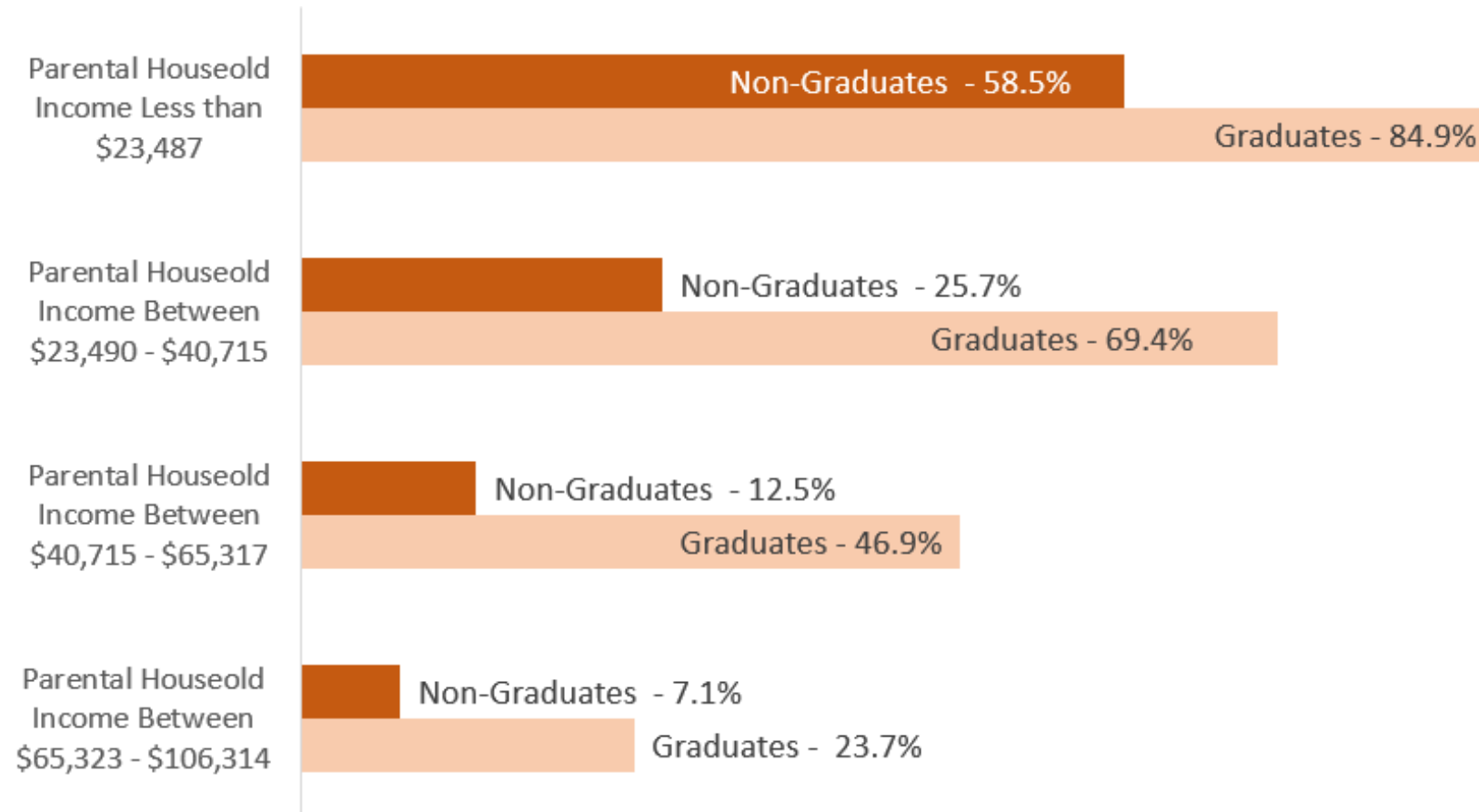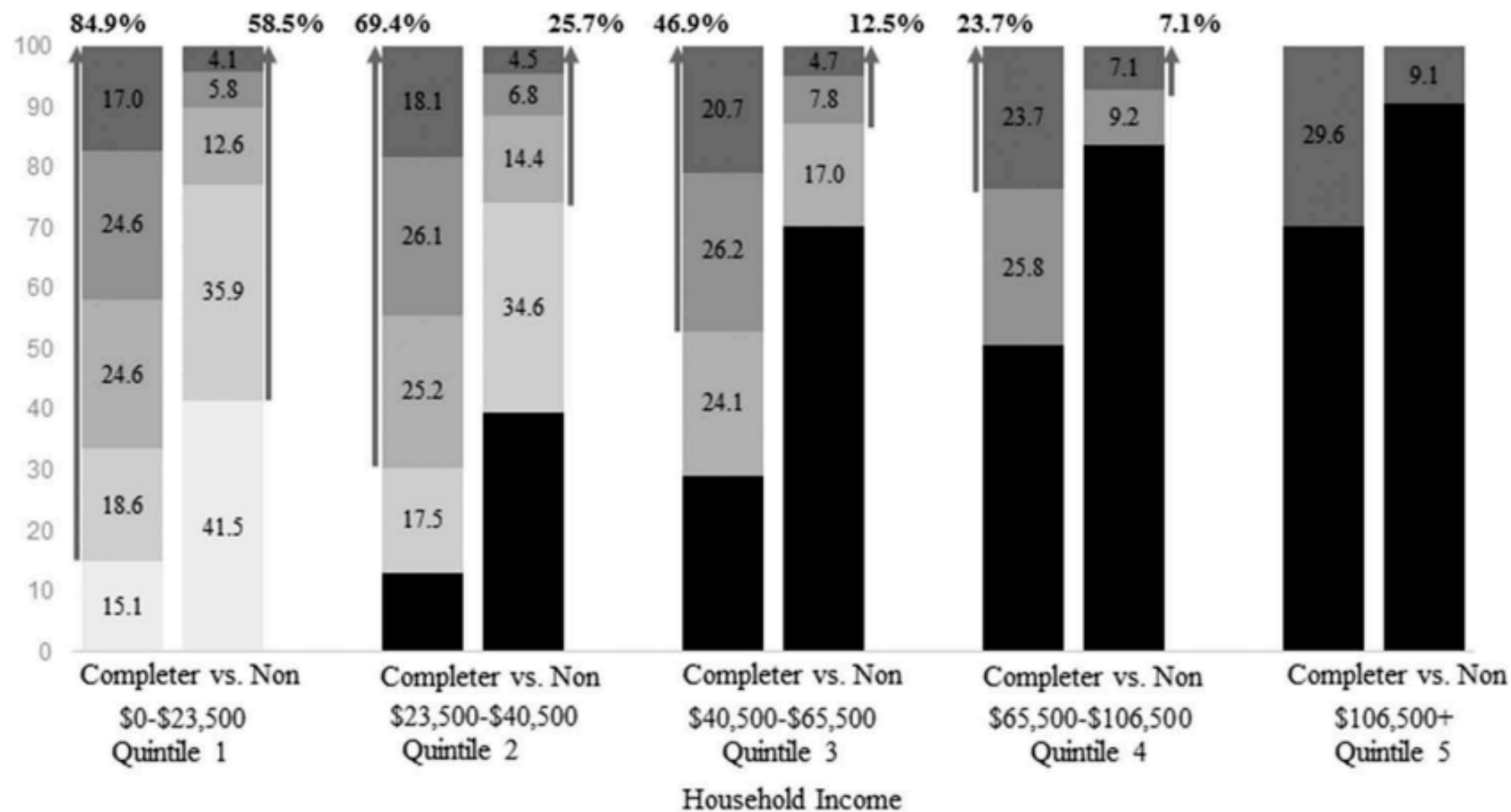UT System Baccalaureate Programs Debt to Income Ratio - 5-Year, National
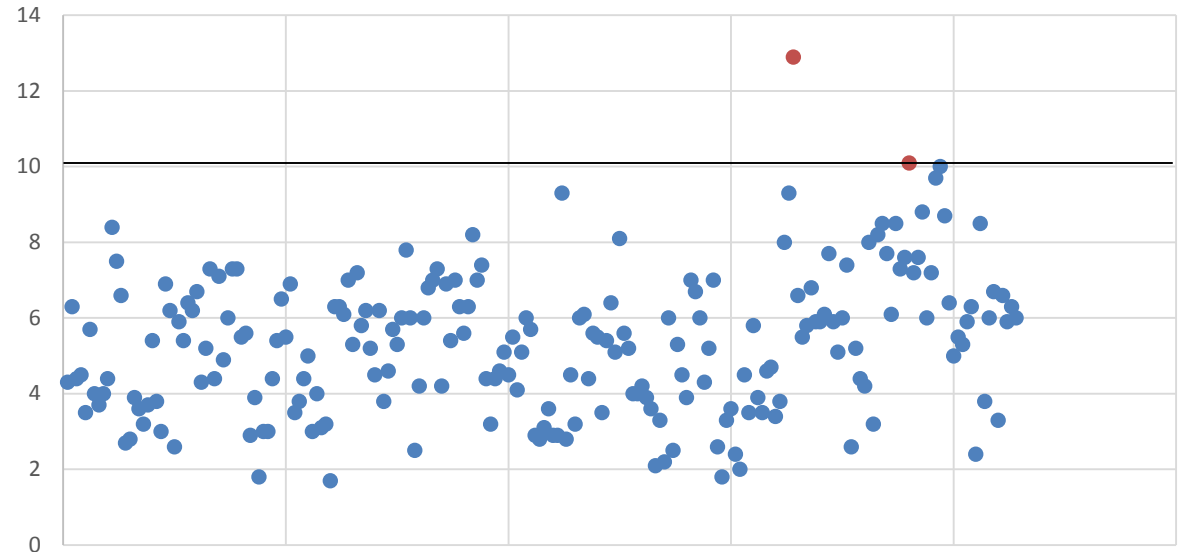
Communicating Liberal Arts Degree Value, National

- Median first-year earnings for 2/3 of graduates of UT System non-STEM programs are higher than the national individual median income of $35,380

- Notable median incomes include

  – Music, $50,856

  – Rhetoric and composition, $46,790

  – Romance languages and literature, $42,841

  – Philosophy, $39,729

Intergenerational Income Mobility: Percentage of Students who Earn more than their Parents within Five Years

Questions