

# Institutional Research and Enrollment Management Practices at the University of Texas System

Dr. Stephanie Bond Huie, Vice Chancellor  
Office of Strategic Initiatives, The University of Texas System

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# Agenda

- Overview of the UT System
- Organizational Structure, the IR Function, and Using Data
  - Campus Overview
  - UT System Office of Strategic Initiatives (OSI)
- Demonstrate the UT System Dashboard and other tools

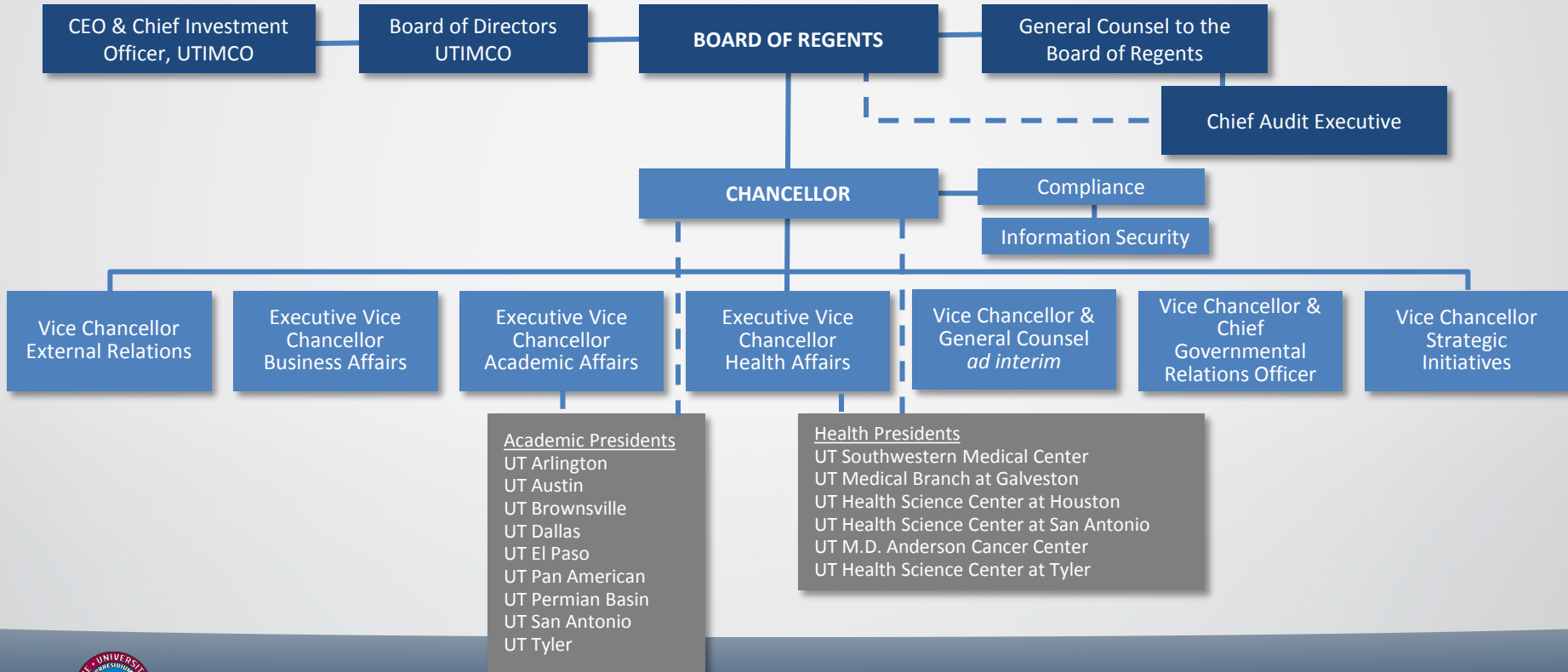


# Overview of The University of Texas System

- 15 institutions
  - 9 academic institutions
  - 6 health institutions
- 213,000 students enrolled (Fall 2013)
  - 76% undergraduate
- Conferred 51,000 degrees (AY 2012-2013)
  - 33,000 baccalaureates
  - 1,800 Ph.D.s
  - 1,800 Professionals, including 1,400 medical professionals
- Annual operating budget of \$14.6 billion (FY 2014)
- More than \$2.5 billion in research funding (FY 2013)



# The University of Texas System Organization



# UT System: A Decentralized Model

- Like the overall UT System structure, the institutional research (IR) function is decentralized
- UT institutions generate and own the data, using it to drive planning and decision making for their own campus
- UT System Administration aggregates that data and conducts and presents research that supports larger, system-wide strategic priorities



# At the Campus Level

## *Organizational Structure, IR Function & Using Data*



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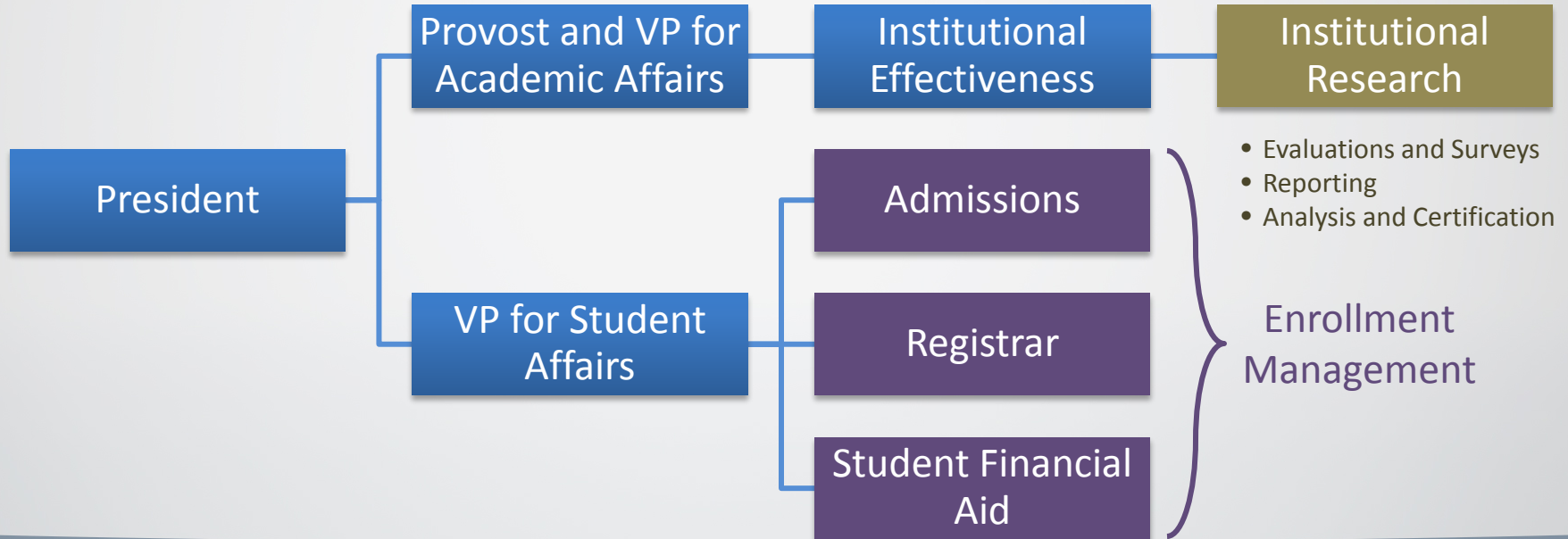
# About UT San Antonio

- 28,623 students enrolled (Fall 2013)
  - 86% undergraduate
- Conferred 5,856 degrees (AY 2012-2013)
  - 4,461 baccalaureates
  - 1,296 master's
  - 99 doctorates
- Annual operating budget of \$513.8 million (FY 2014)
- \$51 million in research expenditures (FY 2013)





# UT San Antonio Example: Organizational Structure





# UT San Antonio Example: Enrollment Management and the IR Function

- IR reports to the Provost
- Admissions, Registrar, and Financial Aid report to the VP for Student Affairs
- Enrollment Management team that includes representatives from all the Colleges, Graduate School, Admissions, Financial Aid, IR, etc.
- UTSA is in the midst of significant institutional changes, one being a more sophisticated look at enrollment management, in which IR will have a key role



# UT San Antonio Example: Role of Institutional Research

- Provide interested persons with reliable and consistent information to inform decision making
- Serve as consultants in program evaluation to assist departments in designing informative measures for program success



# UT San Antonio Example: Using Data to Inform Policy & Practice

Using data to make evidence-based decisions about academic advising

- Had previously advised first-year students to enroll in 12 semester credit hours (SCH)
- IR analyzed the data and found that students who enroll in at least 15 SCH earn higher GPAs and complete a higher percentage of the hours attempted, regardless of high school rank
- This has led to a change in advising

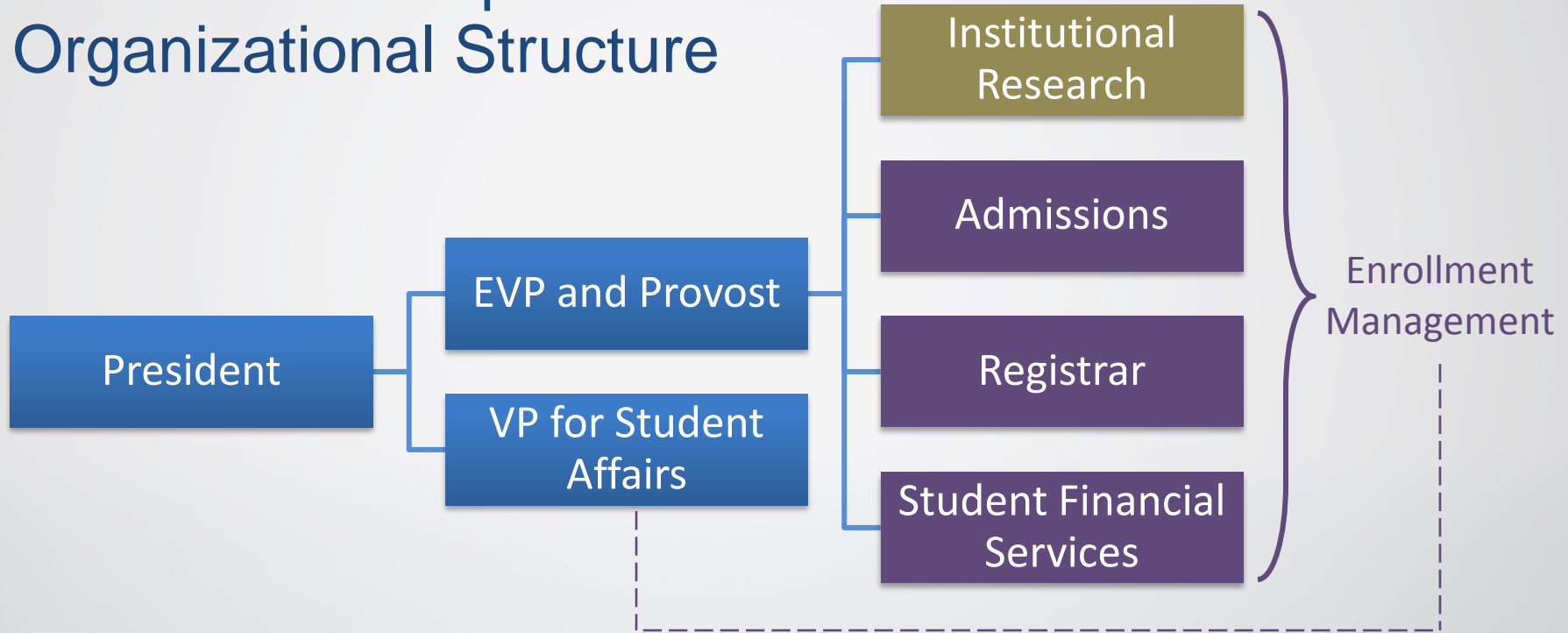


# About UT Austin

- ~52,059 students enrolled (Fall 2013)
  - 77% undergraduate
- Conferred 13,616 degrees (AY 2012-2013)
  - 9,207 baccalaureates
  - 3,901 graduate (master's: 3,018; doctoral-research: 883)
  - 508 professionals (law, pharmacy, audiology)
- Annual operating budget of \$2.5 billion (FY 2014)
- \$595 million in research expenditures (FY 2013)



# UT Austin Example: Organizational Structure



# UT Austin Example

## Using Data to Inform Policy & Practice

- In 2011, UT Austin President calls for “Increase four-year graduation rates from 51% to 70% in the next five years”
  - Starting with the 2012 First Time in College Cohort
- Strategy: Construct a longitudinal data set to conduct predictive analytics to improve retention and graduation of the entering 2012 cohort and beyond





# UT Austin Example

## Using Data to Inform Policy & Practice

- Goal: to create a tool (dashboard) that will allow decision makers to use scholarships/grants/loans strategically to increase the likelihood that academically competitive students would attend UT Austin
  - Increase the likelihood of attendance
  - Increase 1<sup>st</sup> year retention
  - Increase 4-year graduation rates





# UT Austin Example

## Using Data to Inform Policy & Practice

- Outcomes:
  - Reshaped the profile of entering cohort (more academically competitive students)
  - Understood better why students were not attending the institution (using Student Tracker data)
  - Provided personalized admissions messages to students
  - Created academic support programs for students needing them
- Policy changes:
  - Created new ways to use discretionary money



# Enrollment Management & Organizational Structure: 2 Models

- UT San Antonio: The Student Affairs Model
  - Pros: student experts; pull in all aspects of student life
  - Cons: weaker tie to IR offices/function; can be an inability to influence policy
- UT Austin: The Provost/Academic Affairs Model
  - Pros: lends credibility to policy efforts; stronger tie to IR office/function; more streamlined
  - Cons: separate from student affairs; disconnect from student expectations and needs



# At the System Level

*Organizational Structure, IR Function & Using Data*



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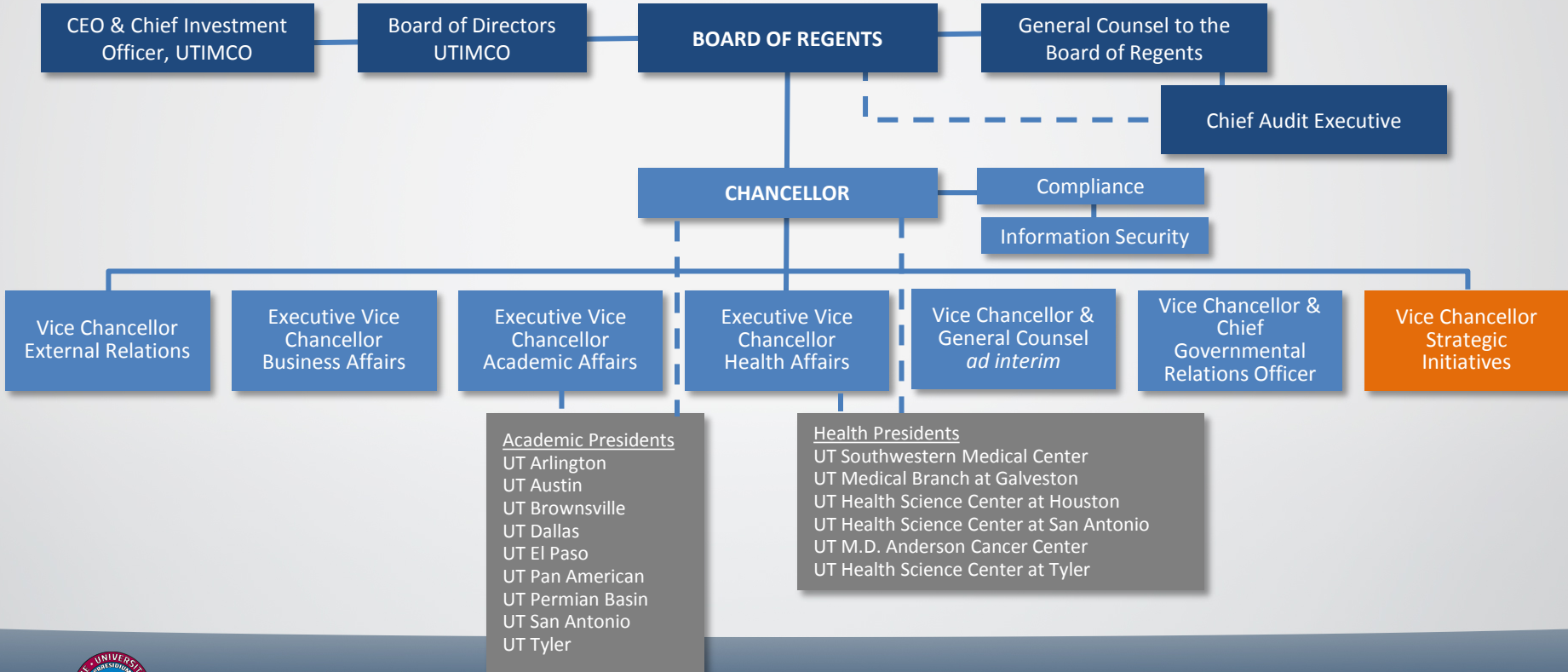
# UT System Office of Strategic Initiatives

## The Big Picture: How System Is Different from Campus

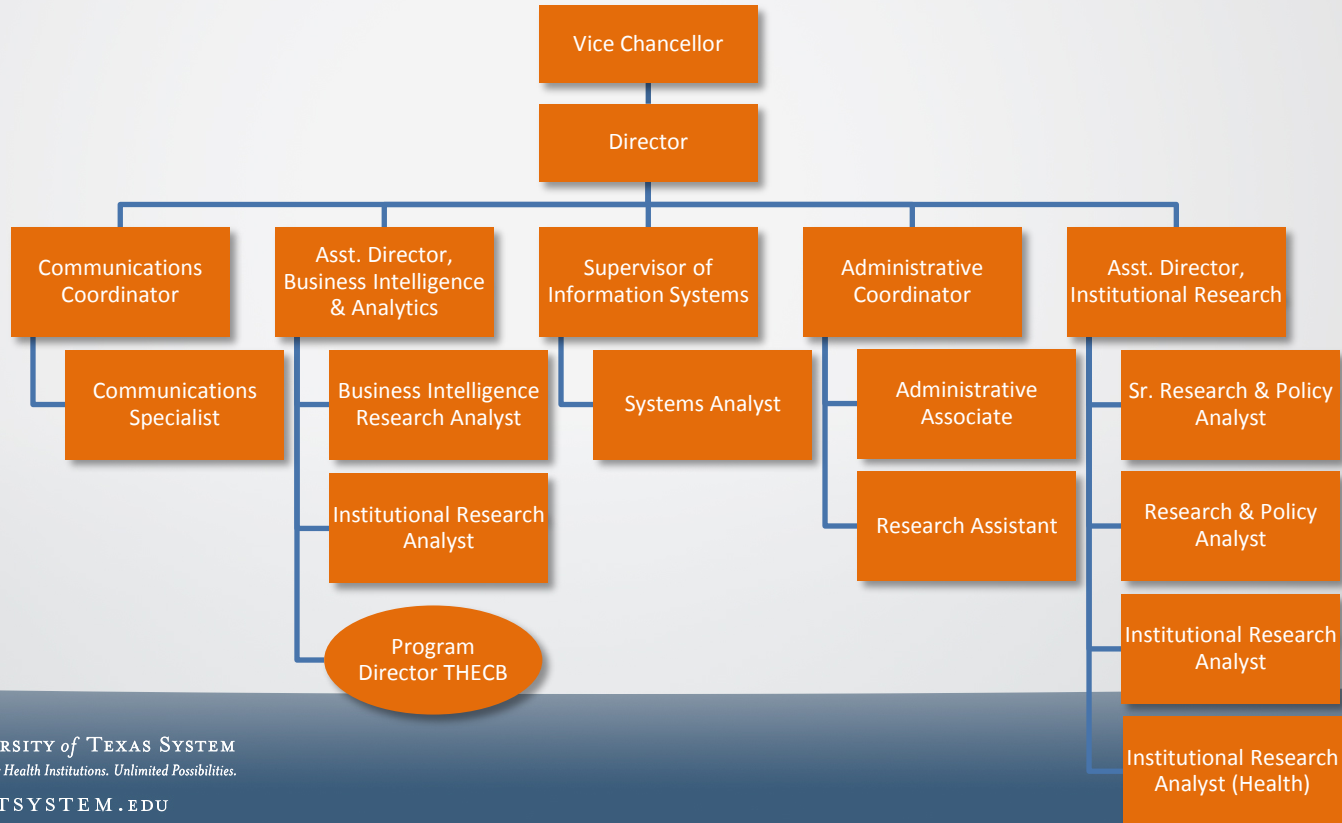
- Collects data from campuses
- Aggregates that data
- Looks for patterns and connections that are relevant across multiple campuses
- Leverages information for strategic purposes



# The University of Texas System Organization



# UT System Office of Strategic Initiatives Organizational Structure





# UT System Office of Strategic Initiatives

## Roles of Institutional Research

- Generates research and analysis to support decision making, policy analysis, and strategic planning
- Develops and maintains data tools
- Provides current data, trends over time, and benchmarking capabilities across a variety of metrics in support of decision and policy making via Web-based business intelligence system
- Maintains the Explore More Visualization online tool, providing analytics for measuring the productivity, efficiency, and impact of the UT System
- Regularly adds data and metrics to tools to increase their power and utility
- Continually works to develop new mechanisms to increase transparency and to support informed decision making





# UT System Office of Strategic Initiatives

## IR Function in Assessing Progress Towards Goals

### Framework for Advancing Excellence

1. Undergraduate Student Access & Success
2. Faculty/Administrators/Staff Excellence
3. Research
4. Productivity and Efficiency
5. Enhance Philanthropic Success
6. Ph.D. Programs
7. The Health of Texas
8. Expanding Educational and Health Opportunities in South Texas



# UT System Office of Strategic Initiatives

## Using Data: Best Practices in Benchmarking

- Benchmarking
  - Benchmarking is the process where policymakers compare the performance, practices, and policies of institutions or groups of institutions to gain insight
- Why is Benchmarking Important?
  - So that policymakers can more accurately answer questions such as, “What are the characteristics that allow for superior institutional performance?” “How can we improve institutional performance?” “All else being equal – why do some institutions outperform others?”



# UT System Office of Strategic Initiatives

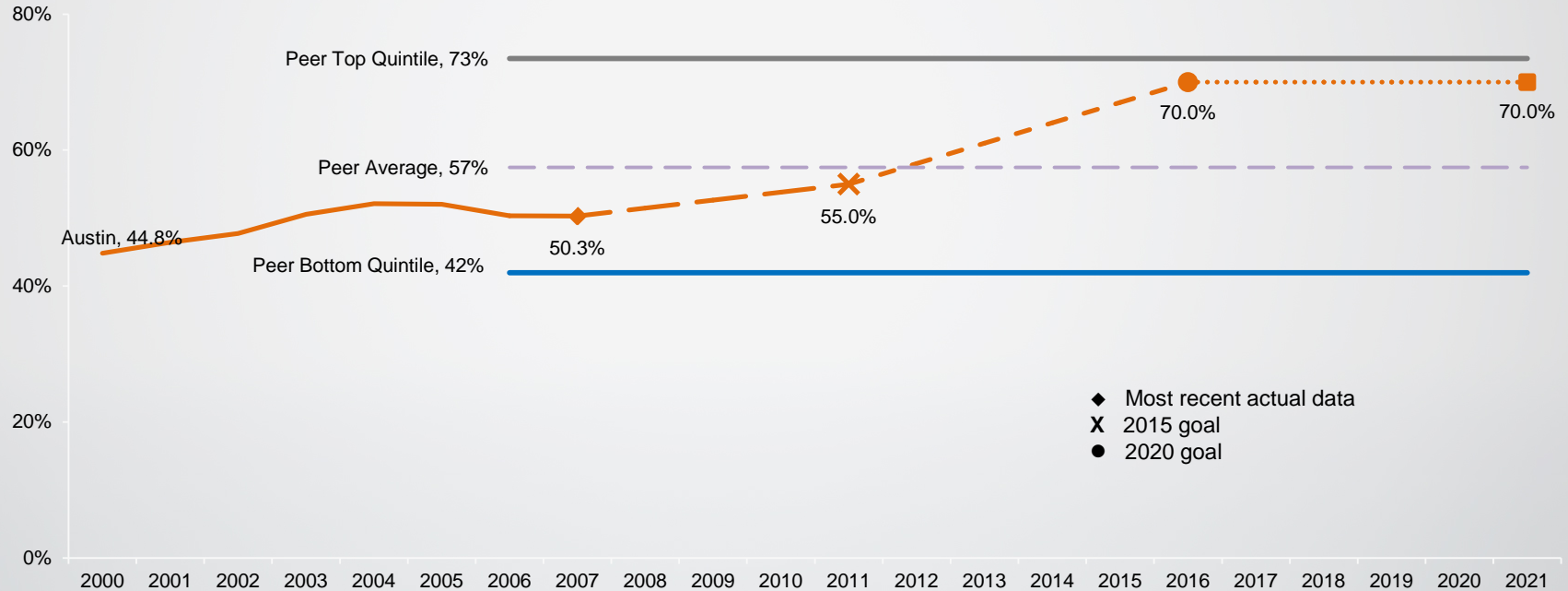
## Using Data: Peer Selection

- Using Data to Select Peers
  - Baseline Peers – institutions statistically similar to you now
  - Aspirational Peers – institutions that are now what you plan to be in the long-term (10 to 15 years)
- Goal-Setting
  - Top quintile of baseline performers as mid-range goals (2020)
  - Long-term goals set at bottom quintile of aspirational peers (2025)
- Benchmarking is critical to evaluating institutional performance
- Benchmark as starting point (you must know where you started so you can evaluate how far you have come)
- Benchmark as context (performance relative to what)



# Using Data: Goal-Setting

UT Austin: 4-Year Graduation Rates Performance Targets  
for students graduating in 2015, 2020, 2025 (from the same institution)

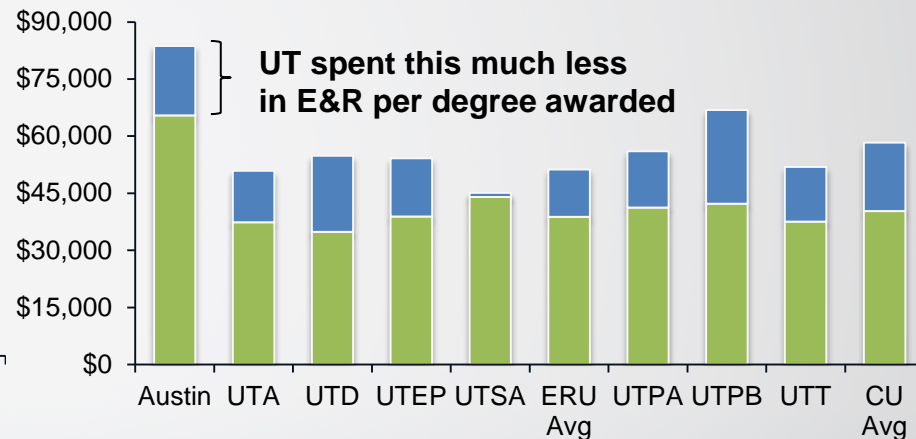
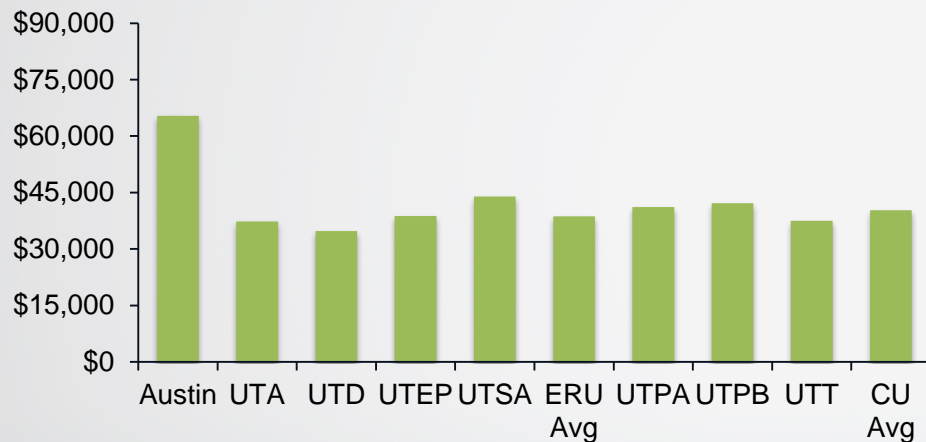


- ◆ Most recent actual data
- X 2015 goal
- 2020 goal



# Using Data: Benchmarks

## Putting Metrics in Context: The Importance of Peer Comparisons

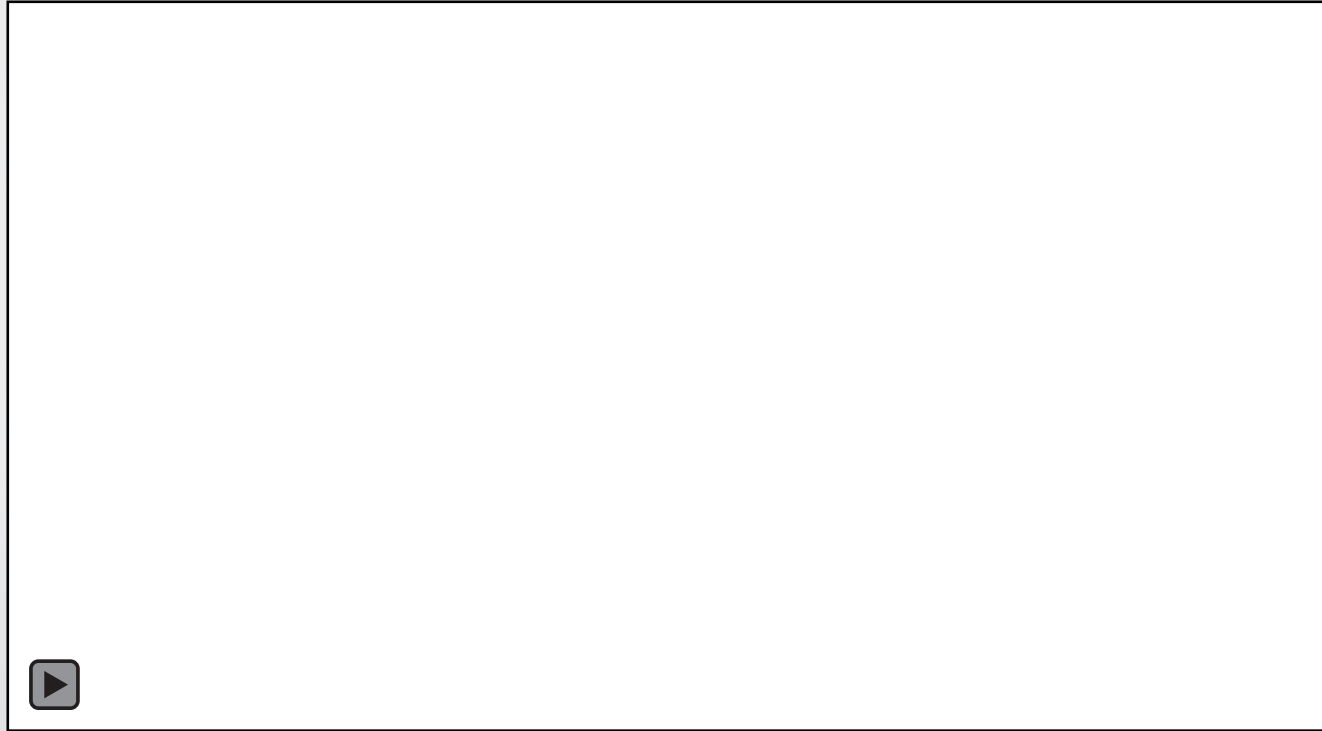


### Peer Comparison: The Old Way

- Manual Graphs
- Single Metric



# Visualizing Benchmarks



# Data Delivery: Online Tools

- BI/Information Delivery Portal [data.utsystem.edu](http://data.utsystem.edu)
  - Dashboards
  - Web reports
  - Online, publicly accessible
- Visual Analytics [exploredata.utsystem.edu](http://exploredata.utsystem.edu)
  - Data visualizations
  - Analytics
  - Mobile BI, publicly accessible
  - Online, publicly accessible





# Using Data: Making Connections Outside the University

- Texas Workforce Commission
  - Employment outcomes (state; average salary; and, within Texas, industry)
- National Student Clearinghouse
  - Fill in the gaps after graduation, particularly for students who attend graduate school out of state
  - Where do undergraduates go if they don't go to UT?



# A New Tool for Students



- Follows students over time (currently 5 years)
- Provides earnings in the context of average loan debt, by major
- Offers ability to compare earnings and debt by various majors side-by-side
- Goes beyond the median to show various percentiles
- Indicates the percent of students who continue their education beyond the BA
- Includes integrated view of labor market demand by occupation (BLS) – state, regional, and national





## FUTURE EARNINGS, STUDENT LOANS & YOU

PLANNING FOR THE FUTURE · INFORMING DECISIONS NOW

Home

seekUT Tool

Tutorial / Help

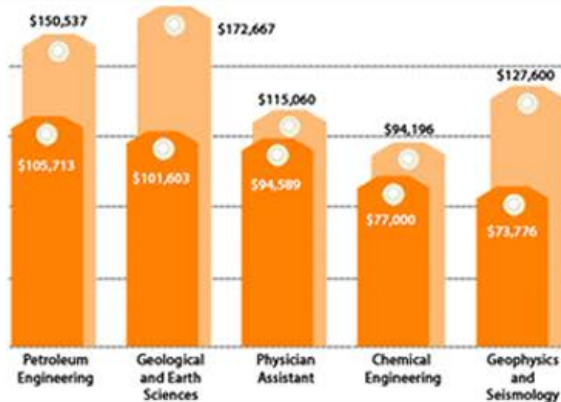
About the Project

About the Data

FAQs

Resources

### TOP FIVE SALARIES FOR UT SYSTEM GRADUATES WITH BACHELOR'S DEGREES IN STEM FIELD OF STUDY



### Header Goes Here

It can be hard to predict exactly how the choices you make today can impact your future. The UT System's new data tool [seekUT](#) can help you. It can't predict the future. But it can tell you what the loan amounts and earnings of past UT graduates have been and help you make the decisions about your education that are right for you and your family.

seek  NOW



# How much did UT students graduating with a bachelor's degree earn in Texas? How much did they owe in student loans?

## 1. I am interested in:

Business, Management, Marketing, And Related Support Services

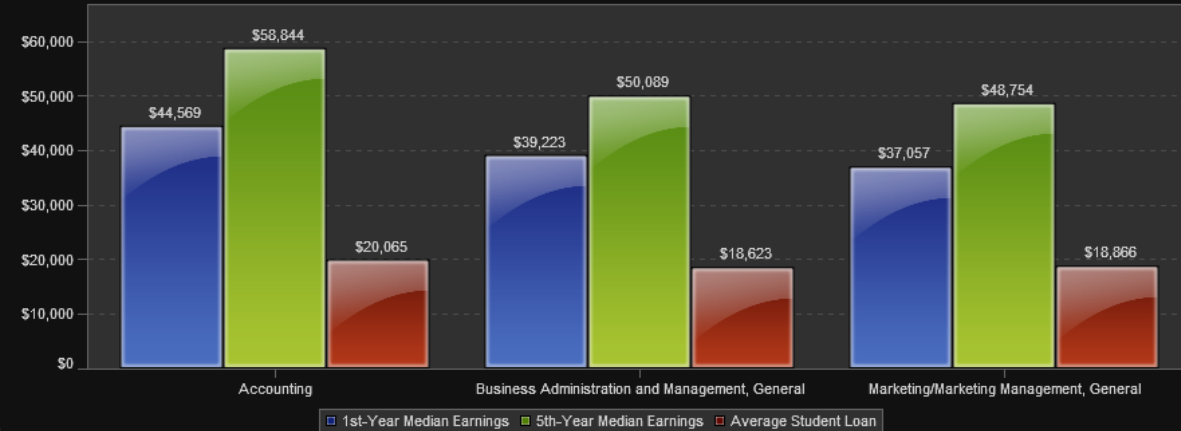
## 2. I am interested in attending:

- UT Arlington, UT Dallas, UT El Paso, UT San Antonio
- UT Austin
- UT Brownsville, UT Pan American, UT Permian Basin, UT Tyler

## 3. In my area of interest, I might want to major in:

- Accounting
- Actuarial Science
- Banking and Financial Support Services
- Business Administration and Management, General
- Business/Commerce, General
- Business/Managerial Economics
- Entrepreneurship/Entrepreneurial Studies
- Finance, General
- Human Resources Management/Personnel Administration, General
- International Business/Trade/Commerce
- Management Information Systems, General
- Management Science
- Marketing/Marketing Management, General
- Operations Management and Supervision
- Real Estate
- Sales, Distribution, and Marketing Operations, General

## 1st-Year and 5th-Year Median Earnings with Average Student Loan



## Program Description, Median 1st-Year Earnings, Median 5th-Year Earnings and Average Student Loan Debt

Degree Major	Description	1st-Year Median Earnings	5th-Year Median Earnings	Average Student Loan
Accounting	A program that prepares individuals to practice the profession of accounting and to perform related business functions. Includes instruction in accounting principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations	\$44,569	\$58,844	\$20,065
Business Administration and Management, General	A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization	\$39,223	\$50,089	\$18,623

Tool tip: select an object and maximize it to get a better view.

### 1. I am interested in:

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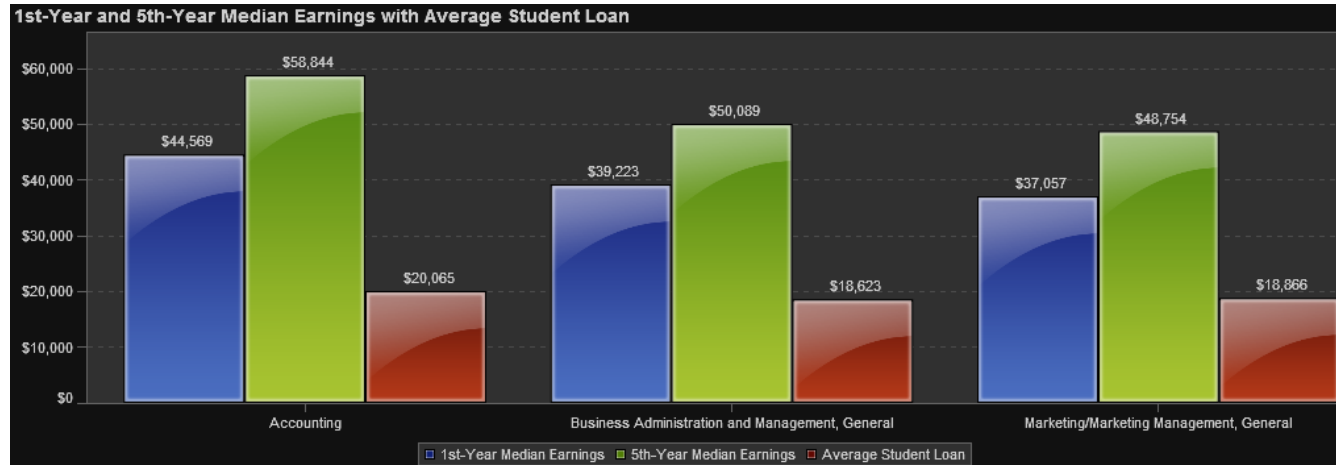
## What Does the Student Do?

- Step 1: Selects a broad field → *Business*
- Step 2: Selects institution → *UT Arlington, UT Dallas, UT El Paso, UT San Antonio*
- Step 3: Selects specific degree majors to narrow the focus (optional) →  
*Accounting*  
*Business Administration*  
*Marketing*

# What Does the Report Show?

## Chart

- 1st-year median earnings (blue)
- 5<sup>th</sup>-year median earnings (green)
- Average student loan debt (red)



Program Description, Median 1st-Year Earnings, Median 5th-Year Earnings and Average Student Loan Debt

Degree Major	Description	1st-Year Median Earnings	5th-Year Median Earnings	Average Student Loan
Accounting	A program that prepares individuals to practice the profession of accounting and to perform related business functions. Includes instruction in accounting principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations	\$44,569	\$58,844	\$20,065
Business Administration and Management, General	A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making	\$39,223	\$50,089	\$18,623
Marketing/Marketing Management,	A program that generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from	\$37,057	\$48,754	\$18,866

Table provides another view of the data and adds helpful descriptions

## How much did the earnings of UT graduates in Texas vary within a major?

### 1. I am interested in:

Business, Management, Marketing, And Related Support Services

### 2. I am interested in attending:

- UT Arlington, UT Dallas, UT El Paso, UT San Antonio
- UT Austin
- UT Brownsville, UT Pan American, UT Permian Basin, UT Tyler

### 3. In my area of interest, I might want to major in:

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- Business/Commerce, General
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- Entrepreneurship/Entrepreneurial Studies
- Finance, General
- Human Resources Management/Personnel Administration, General
- International Business/Trade/Commerce
- Management Information Systems, General
- Management Science
- Marketing/Marketing Management, General
- Operations Management and Supervision
- Real Estate
- Sales, Distribution, and Marketing Operations, General
- Tourism and Travel Services Management

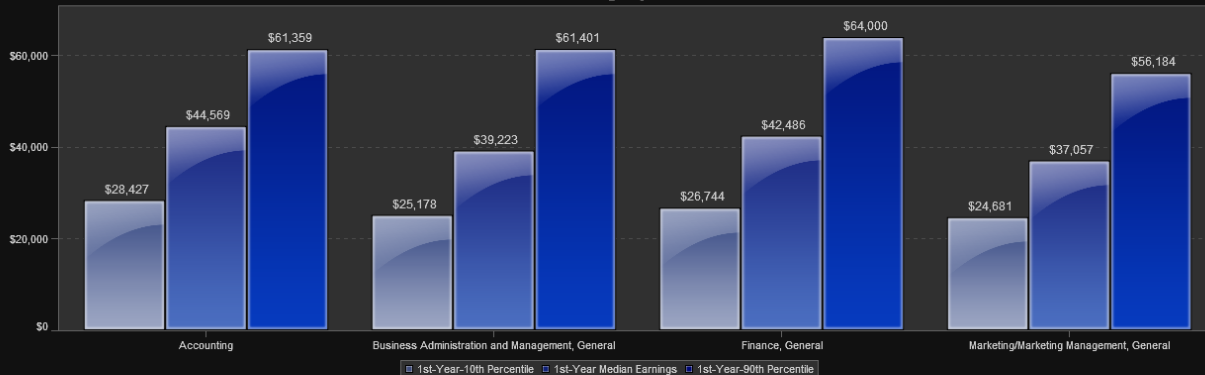
### What do the percentiles mean?

**10th percentile** - these had earnings at the lower end. 10% had earnings less than this; 90% had higher earnings

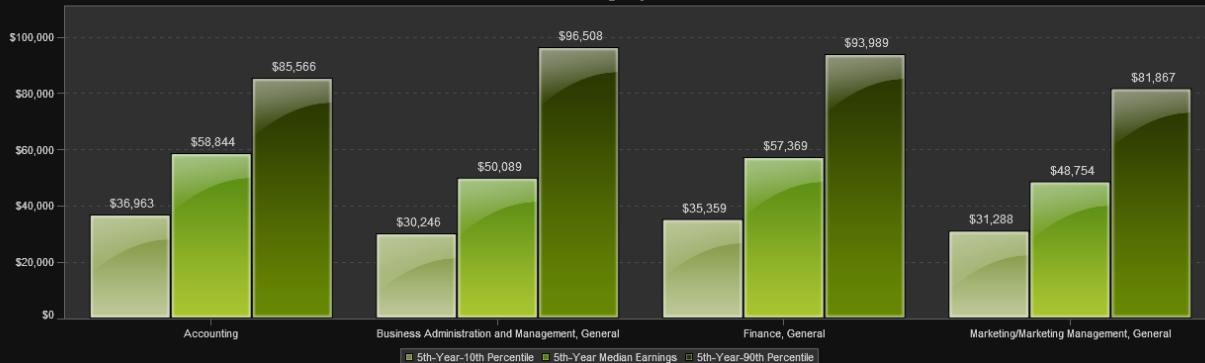
**Median** - this is the 50th percentile - 50% had earnings less than this; 50% had higher earnings

**90th percentile** - these had earnings at the higher end. 90% had earnings less than this; only 10% had higher earnings

### 1st-Year Earnings by Percentile



### 5th-Year Earnings by Percentile





Drop controls here to create a section prompt

## Which jobs in Texas will have the most growth? What do people working in those jobs in Texas earn?

### 1. I am interested in

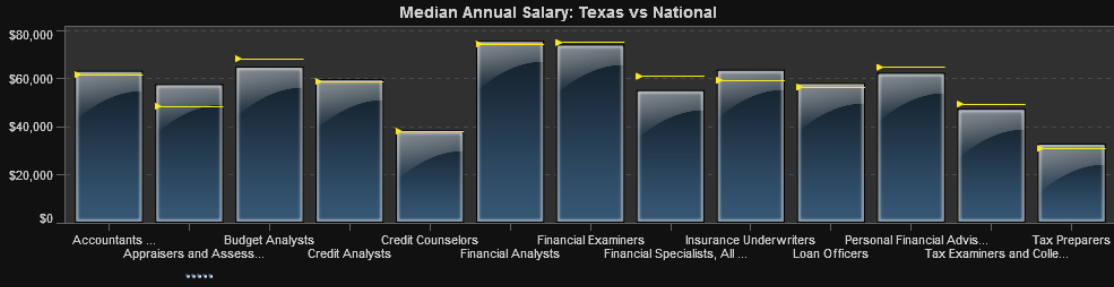
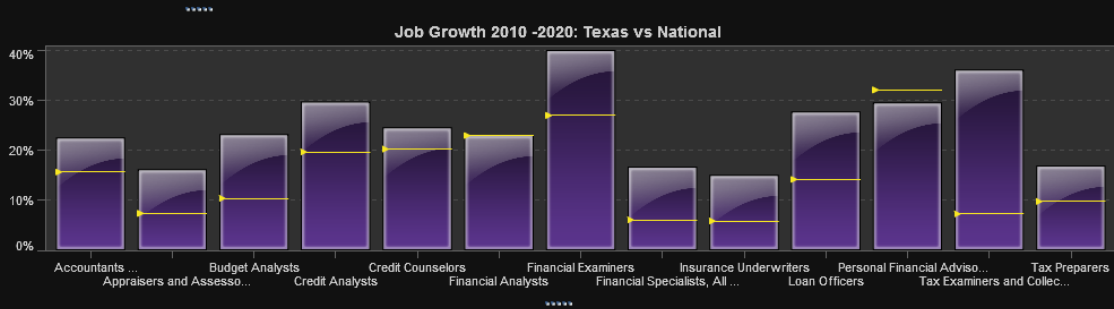
Business and Financial Operations Occupations

### 2. I would like to find out more about

- (missing values)
- All Business and Financial Operations Occupations
- Business Operations
- Financial Specialists

### Filter on Education Requirements

Typical Education Requirements



### Occupations Outlook for Texas (Statewide)

Occupation Title	Texas Median Annual Wage	TX Jobs 2010	TX Jobs 2020	Texas Job Growth	National Job Growth	Typical Education Requirements
Accountants and Auditors	\$63,180	90,480	110,950	22.6%	15.7%	Bachelor's degree
Appraisers and Assessors of Real Estate	\$57,650	6,390	7,430	16.3%	7.4%	High school diploma or equivalent
Budget Analysts	\$64,930	4,120	5,080	23.3%	10.4%	Bachelor's degree
Credit Analysts	\$59,650	4,770	6,190	29.8%	19.7%	Bachelor's degree
Credit Counselors	\$38,300	4,060	5,060	24.6%	20.3%	Bachelor's degree
Financial Analysts	\$75,000	20,440	25,140	22.6%	22.0%	Bachelor's degree
Financial Examiners	\$75,000	10,000	13,000	38.0%	27.0%	Bachelor's degree
Financial Specialists, All Other	\$55,000	10,000	10,000	7.4%	7.4%	Bachelor's degree
Insurance Underwriters	\$60,000	10,000	13,000	28.0%	15.0%	Bachelor's degree
Loan Officers	\$55,000	10,000	13,000	30.0%	15.0%	Bachelor's degree
Personal Financial Advisors	\$65,000	10,000	13,500	35.0%	10.0%	Bachelor's degree
Tax Examiners and Collectors	\$45,000	10,000	13,500	35.0%	10.0%	Bachelor's degree
Tax Preparers	\$30,000	10,000	11,500	15.0%	10.0%	High school diploma or equivalent

Drop controls here to create a section prompt

### Which Texas regions will see the most job growth by occupation?

I'm interested in this region of Texas

Dallas

I'm interested in

Business and Financial Operations Occupations

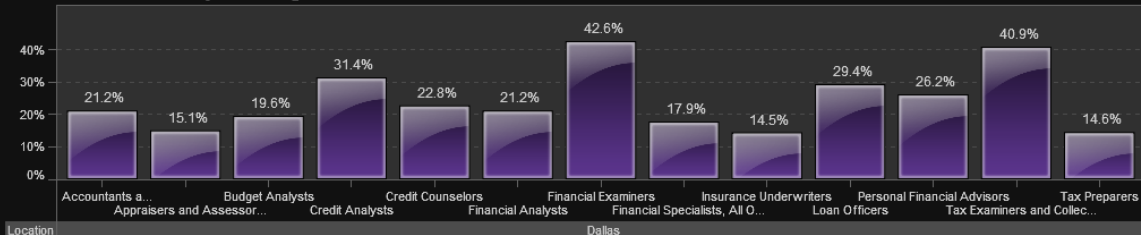
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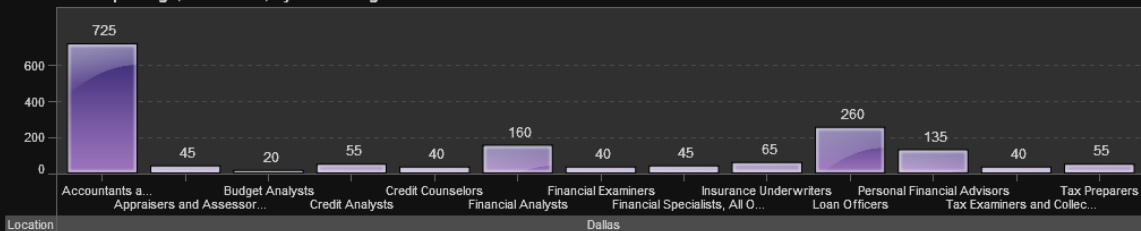
Filter on Education Requirements

Typical Education Required

Job Growth, 2010-2020, by Texas Region



Annual Job Openings, 2010-2020, by Texas Region



### Occupation Outlook in Texas Regions

Occupation Title	Est Annual Job Openings..	Jobs in 2010	Jobs in 2020	Job Growth..	Typical Education Required	Location
Accountants and Auditors	725	16,900	20,480	21.2%	Bachelor's degree	Dallas
Appraisers and Assessors of Real Estate	45	1,190	1,370	15.1%	High school diploma or equivalent	Dallas
Budget Analysts	20	510	610	19.6%	Bachelor's degree	Dallas
Credit Analysts	55	1,050	1,380	31.4%	Bachelor's degree	Dallas
Credit Counselors	40	790	970	22.8%	Bachelor's degree	Dallas
Financial Analysts	160	2,730	4,530	21.2%	Bachelor's degree	Dallas
Financial Examiners	40	1,050	1,130	7.6%	Bachelor's degree	Dallas
Financial Specialists, All Other	45	1,050	1,270	21.0%	Bachelor's degree	Dallas
Insurance Underwriters	65	1,050	1,210	15.2%	Bachelor's degree	Dallas
Personal Financial Advisors	260	1,050	1,310	24.8%	Bachelor's degree	Dallas
Tax Examiners and Collectors	135	1,050	1,185	12.4%	Bachelor's degree	Dallas
Tax Preparers	40	1,050	1,090	3.8%	Bachelor's degree	Dallas
Loan Officers	55	1,050	1,105	5.2%	Bachelor's degree	Dallas

Drop controls here to create a section prompt

What do people earn in other states?

I'm interested in this state:

Florida

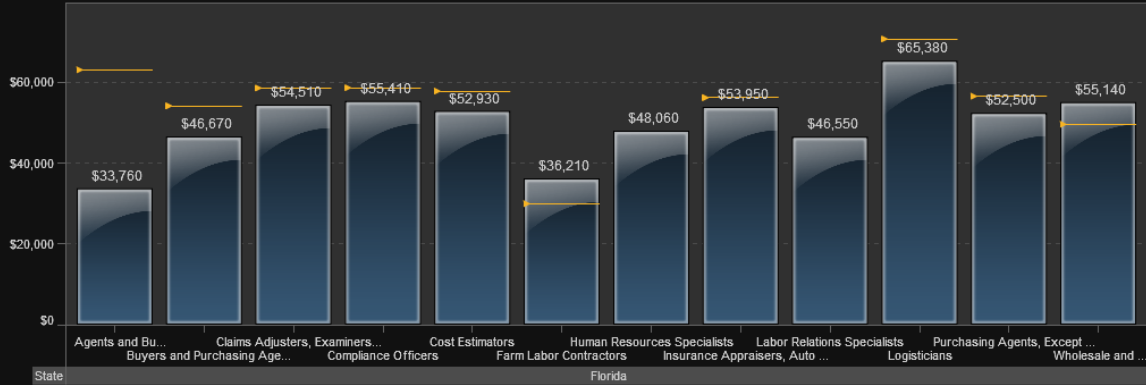
I'm interested in this Major Occupation Group:

Business and Financial Operations Occupations

I'd like to find out more about:

- (missing values)
- All Business and Financial Operations Occupations
- Business Operations
- Financial Specialists

Annual Median Wage: State vs National



Occupational Outlook - State vs National

State		Florida						
Major Occupational Group		Business and Financial Operations Occupations						
Occupation Cat...	Occupation Title	Annual Wage, 10th Percentile	Annual Wage, Median	Annual Wage, 90th Percentile	Est Total Employment in the Occupation in the State	Jobs In State vs Out of State	National Median	National Job Growth
Business Operations	Agents and Business Managers of Artists, Performers, and Athletes	\$21,540	\$33,760	\$87,490	1,010	1.53	\$63,130	14.0%
	Buyers and Purchasing Agents, Farm Products	\$35,560	\$46,670	\$76,610	300	0.52	\$54,220	5.5%
	Claims Adjusters, Examiners, and Investigators	\$35,060	\$54,510	\$84,850	20,360	1.39	\$58,620	3.0%



[www.utsystem.edu/seekUT](http://www.utsystem.edu/seekUT)

Productivity Dashboard [data.utsystem.edu](http://data.utsystem.edu)

Explore More Data Visualizations [exploredata.utsystem.edu](http://exploredata.utsystem.edu)

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# Using Data: Best Practices

- Be Data Smart
  - Data is just data
  - Research and analysis transform the data into information
  - Visualization and presentation make that information consumable
- Beware Data Marketing
  - Data should tell a story, but only in the sense that the visualizations presented should accurately reflect underlying patterns
  - Not all data consumers are data savvy
  - Use good data practices and be consistent



# Cultivating UT's Data Culture: Lessons Learned

- Start small
- Change is hard. Expect resistance
- Demonstrate success and value and build on that
- Give them what they want – but show them what's possible
- Make the hard sell
  - And then do it again
  - And again



# Thank You

Productivity Dashboard [data.utsystem.edu](https://data.utsystem.edu)

Explore More Data Visualizations [exploredata.utsystem.edu](https://exploredata.utsystem.edu)

Follow us on Twitter [@UTFactsOnline](https://twitter.com/UTFactsOnline)

OSI website at [www.utsystem.edu/offices/strategic-initiatives](https://www.utsystem.edu/offices/strategic-initiatives)

