



# THE CONNECTION

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Economic Development and Our Community

*STEM Employment Growth –  
Projected Growth in  
DFW STEM Employment,  
2019 to 2029:  
Mathematical Science Occupations*

Published May 21, 2021

The Dallas-Fort Worth region is expected to create about **50 thousand STEM jobs** between 2019 and 2029. This projected growth will add to an estimated **63 thousand** STEM jobs gained in the preceding decade, from 2009 to 2019.

**Mathematical science occupations**, which include **operations research analysts, data scientists, statisticians, actuaries, and mathematicians**, constitute only a small portion (2%) of STEM jobs. However, they account for **4%** of expected STEM jobs gain, or **2,000 new jobs** between 2019 and 2029, in addition to **3,200 jobs added between 2009 and 2019**. Around **0.20%** of the DFW workforce will be employed in mathematical science occupations in 2029; in 2019, this number was **0.16%** and in 2009, **0.10%**.

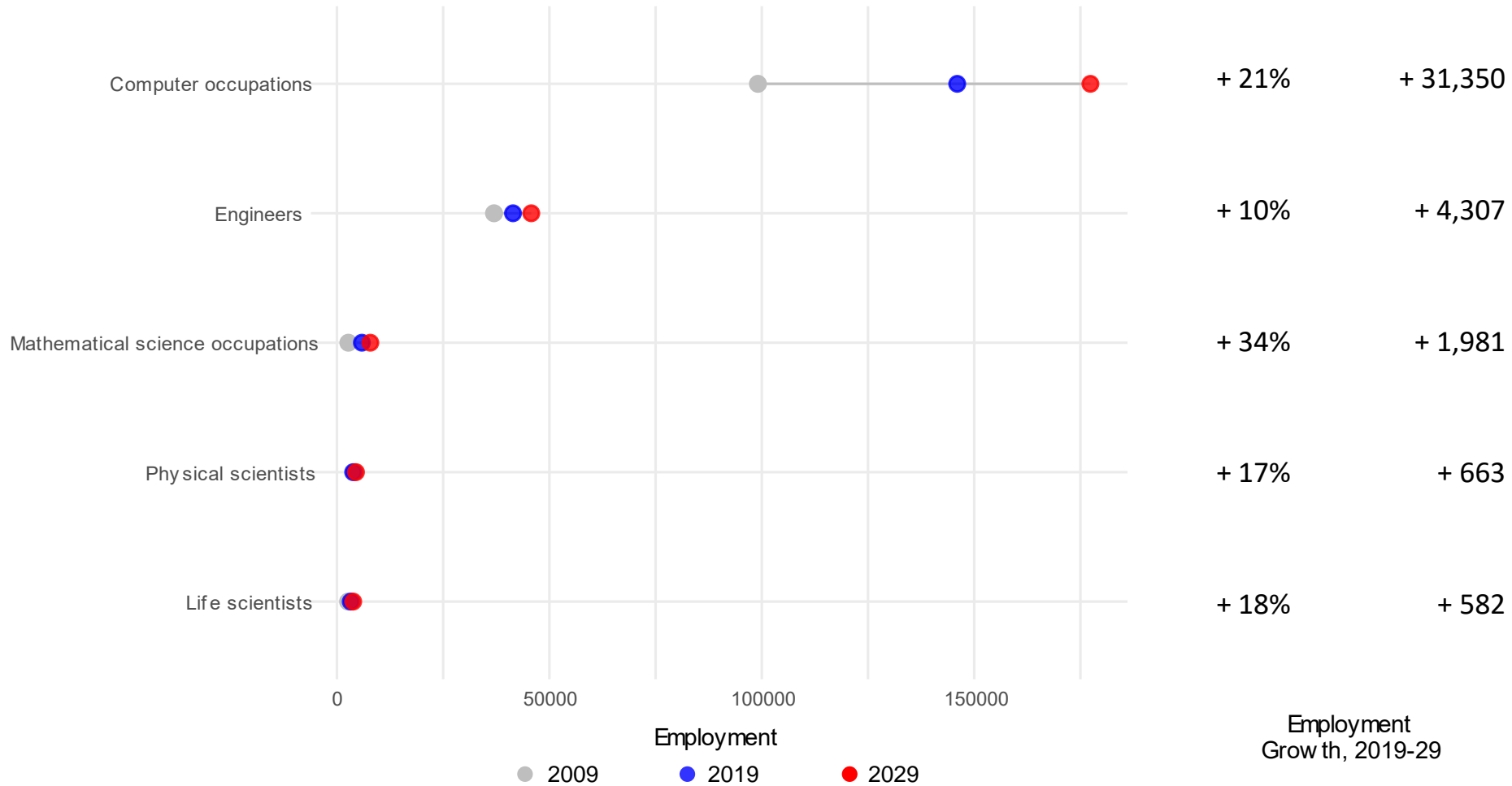
Within the next decade, employment in mathematical science occupations is expected to grow **34%** in DFW and **26%** nationwide. In fact, DFW accounts for **4%** of total U.S. mathematical science job growth. Furthermore, median earnings for **operations research analysts** and **data scientists**, the occupations with the greatest expected growth, are higher in DFW than the national average.

Mathematical science occupations will become more concentrated in DFW. By 2029, around **2.5%** of all American jobs will be located in DFW. A higher percentage (**3%**) of all American **mathematical science occupations** jobs will be located in DFW – up from just over 2% in 2009.

The University of Texas at Dallas is preparing students to fill those expected positions. See *slide 9* for more information about mathematical science occupations-related academic programs.



# Projected Employment Growth by STEM Occupational Group Dallas - Fort Worth





# Projected Employment Growth by STEM Occupational Group

## Dallas - Fort Worth

Occupation	Employment		Employment Change	
	2019	2029	2019-29	2019-29
<b>STEM occupations (excluding education)</b>	<b>303,824</b>	<b>353,144</b>	<b>16%</b>	<b>49,320</b>
<b>Computer occupations</b>	146,000	177,350	21%	31,350
<b>Engineers</b>	41,439	45,746	10%	4,307
<b>Mathematical science occupations</b>	5,877	7,858	34%	1,981
<b>Physical scientists</b>	3,816	4,479	17%	663
<b>Life scientists</b>	3,243	3,825	18%	582

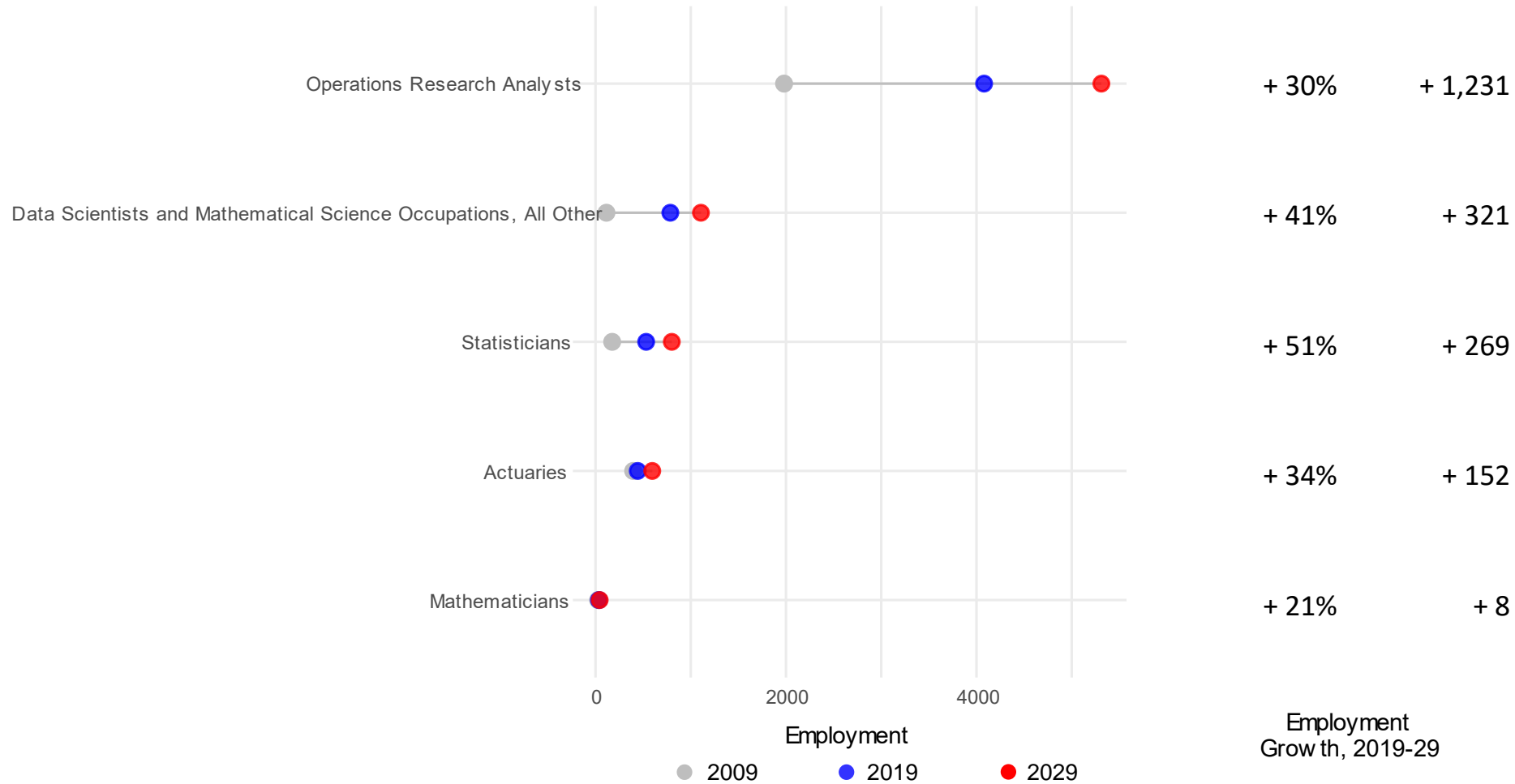
## United States

Occupation	Employment		Employment Change	
	2019	2029	2019-29	2019-29
<b>STEM occupations (excluding education)</b>	<b>10,838,600</b>	<b>11,887,929</b>	<b>10%</b>	<b>1,049,329</b>
<b>Computer occupations</b>	4,394,409	5,038,034	15%	643,625
<b>Engineers</b>	1,804,726	1,913,503	6%	108,776
<b>Mathematical science occupations</b>	200,322	253,390	26%	53,068
<b>Physical scientists</b>	265,822	287,155	8%	21,333
<b>Life scientists</b>	332,611	361,160	9%	28,549



# Projected Employment Growth in Mathematical Science Occupations

## Dallas - Fort Worth



# Projected Employment Growth in Mathematical Science Occupations

## Dallas - Fort Worth

Occupation	Employment		Employment Change	
	2019	2029	2019-29	2019-29
<b>Mathematical science occupations</b>	<b>5,877</b>	<b>7,858</b>	<b>34%</b>	<b>1,981</b>
Operations Research Analysts	4,080	5,311	30%	1,231
Data Scientists and Mathematical Science Occupations, All Other	786	1,107	41%	321
Statisticians	532	801	51%	269
Actuaries	443	596	34%	152
Mathematicians	36	44	21%	8



# Projected Employment Growth in Mathematical Science Occupations

## United States

Occupation	Employment		Employment Change	
	2019	2029	2019-29	2019-29
<b>Mathematical science occupations</b>	<b>200,322</b>	<b>253,390</b>	<b>26%</b>	<b>53,068</b>
Operations Research Analysts	98,968	124,223	26%	25,255
Data Scientists and Mathematical Science Occupations, All Other	40,023	53,872	35%	13,849
Statisticians	31,698	41,151	30%	9,453
Actuaries	26,382	30,720	16%	4,338
Mathematicians	3,251	3,425	5%	174



# Median Annual Earnings in Mathematical Science Occupations

Occupation	Earnings	
	DFW	U.S.
<b>Mathematical science occupations</b>	-	-
Operations Research Analysts	\$87,082	\$86,195
Data Scientists and Mathematical Science Occupations, All Other	\$101,208	\$98,238
Statisticians	\$90,045	\$92,269
Actuaries	\$112,572	\$111,030
Mathematicians	\$67,054	\$110,864





# UT Dallas Programs Preparing Students for Mathematical Science Occupations

Program	Enrollment (Fall 2019)
<b>Actuarial Science</b>	
<a href="#">BS</a>	182
<a href="#">MS</a>	21
<b>Business Analytics</b>	
<a href="#">MS</a>	1,063
<b>Data Science</b>	
<a href="#">BS/BS</a>	89
<b>Economics</b>	
<a href="#">BA/BS</a>	274
<a href="#">MS</a>	29
<a href="#">PhD</a>	24
<b>Finance</b>	
<a href="#">BS</a>	918
<a href="#">MS</a>	259
<b>Financial Technology and Analytics</b>	
<a href="#">MS</a>	-
<b>Geospatial Information Sciences</b>	
<a href="#">BS</a>	33
<a href="#">MS</a>	19
<a href="#">PhD</a>	18
<b>Master of Business Administration</b>	
<a href="#">MBA</a>	1,040

Program	Enrollment (Fall 2019)
<b>Management Science</b>	
<a href="#">MS</a>	154
<a href="#">PhD</a>	74
<b>Mathematics</b>	
<a href="#">BA/BS</a>	254
<a href="#">MS</a>	27
<a href="#">PhD</a>	61
<b>Physics</b>	
<a href="#">BA/BS</a>	161
<a href="#">MS</a>	28
<a href="#">PhD</a>	56
<b>Social Data Analytics and Research</b>	
<a href="#">MS</a>	17
<b>Statistics</b>	
<a href="#">MS</a>	40
<a href="#">PhD</a>	35
<b>Supply Chain Management</b>	
<a href="#">BS</a>	212
<a href="#">MS</a>	288
<b>Mathematics Education</b>	
<a href="#">MAT</a>	12



## Questions?

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