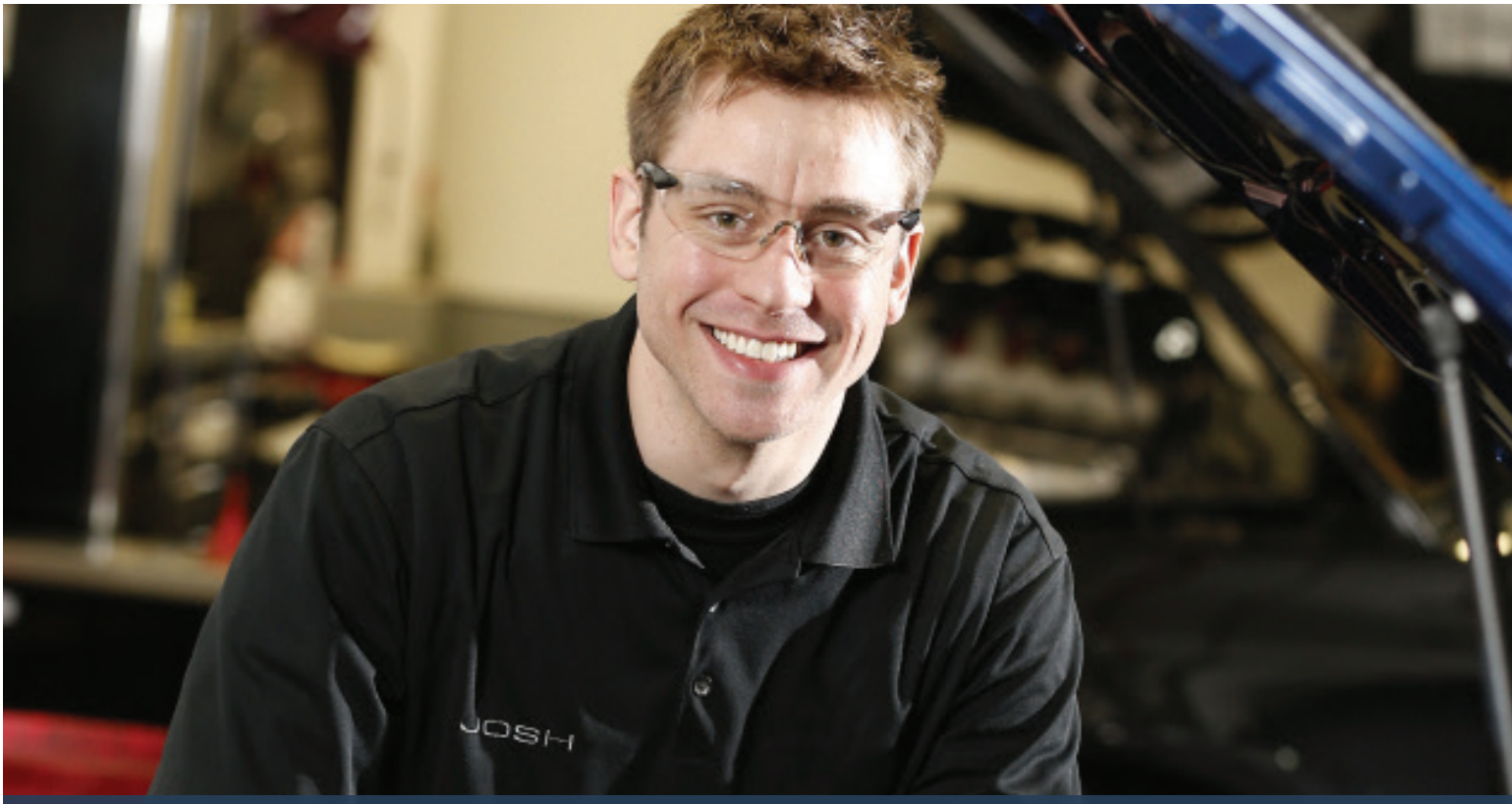
TechForce Foundation®

TRANSPORTATION TECHNICIAN SUPPLY & DEMAND REPORT



For new entrant technicians in the automotive, collision repair and diesel industries.

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TRANSPORTATION TECHNICIAN SUPPLY & DEMAND

EXECUTIVE SUMMARY

When TechForce Foundation released its Technician Demand report (Oct 2017) and Technician Supply report (June 2018), the gravity of the transportation technician shortage was clearly evident. With our current update, we see that not only does this trend continue, but it has even worsened.

This situation is exacerbated by the fact that we are losing ground on both sides; technician demand continues to rise, while the potential supply graduating from postsecondary institutions continues to decrease. The single exception is a slight increase in diesel postsecondary completions, which is a continuing trend from last year.

Although there are other sources of supply for technicians than only postsecondary institutions, the continuing increase in demand for technicians and the general decline in postsecondary completions is only aggravating the existing shortage of trained technicians. The shortage of diesel technicians also continues despite the increase in postsecondary completions.

1This report is a combined update supplement to TechForce Foundation's Technician Demand report (Oct. 2017), and the Technician Supply report (June2018). For further information on methodology and background, please see those reports.

Technician Demand

Demand is normally based on the Bureau of Labor ("BLS") 10 year occupation projections which are produced every 2 years. The 2016-2026 projections were used for the Oct. 2017 TechForce report but the 2018-2028 BLS projections will not appear for another year so there are relatively minor changes for this update.

This supplement addresses projected annual demand for new entrant technicians in the automotive, collision and diesel fields. New entrant technicians are those entering the occupation for the first time, as opposed to experienced technicians who may be switching employers but don't increase the number of technicians available in the occupation. As a reminder, the projections below are for demand, not actual hiring. To the extent that employers are not able to hire all the technicians they seek, the numbers below will exceed the total increase in technicians actually reported by the BLS.

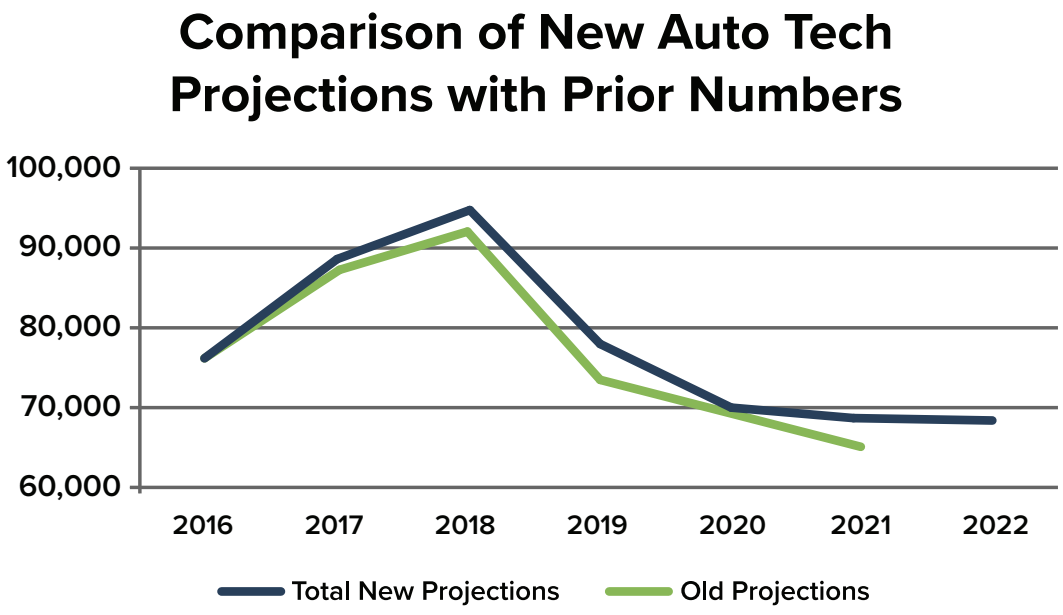
1. Demand for Automotive New Entrant Technicians

The automotive projections below (orange shading) show a modest increase over the projections made last year and the projections have been extended one year, to 2022. The increase is due to a stronger economy.

Revised Projections (a)	2016Est.	2017 Est.	2018	2019	2020	2021	2022
New Positions	5,000	18,036	22,162	4,759	(2,819)	(3,837)	(3,799)
+ Replacement	71,100	70,650	72,689	73,127	72,868	72,515	72,165
Total Demand	76,100	88,686	94,851	77,886	70,049	68,677	68,366
Prior Demand Projection			92,071	73,435	69,400	65,020	

(a) The revised projections assume 3.0% GDP growth in 2018, 2% in 2019, then flat in 2020 and a decline of 1% in 2021 and 2022. The prior projections assumed 3.0% GDP growth in 2017, 2% in 2018, then 1% in 2019, flat in 2020 then a decline of 1% in 2021.

The chart below compares the revised projections to the earlier projections for automotive new entrant demand:



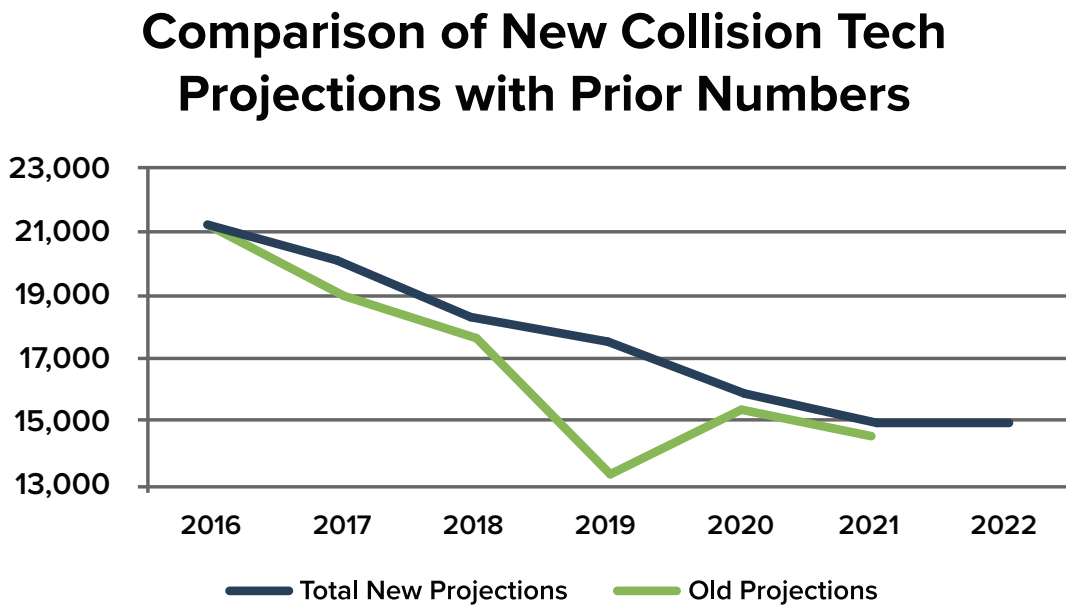
2. Demand for Collision New Entrant Technicians

Like the automotive projections, the projections for new entrant collision technician demand are slightly higher than the prior projections because of the stronger economy. The only other change was to the projected technicians per thousand VIU ratio to make the downward trend in demand more consistent as can be seen in the chart below comparing the new projections with the prior numbers.

The revised projections for collision new entrant technicians is shown below shaded in orange.

Revised Projections (a)	2016Est.	2017 Est.	2018	2019	2020	2021	2022
New Positions	5,350	4,544	2,568	1,607	0	(819)	(811)
+ Replacement	15,800	15,505	15,746	15,897	15,897	15,820	15,744
Total Demand	21,150	20,049	18,314	17,504	15,897	15,001	14,933
Prior Demand Projection			17,662	13,447	15,430	14.563	
(a) Same economic projections as used for automotive projections.							

The comparison of the new projections with the prior projections is shown below:



3. Demand for Diesel New Entrant Technicians

Historically, diesel demand been relatively stable with growth in a strong economy. Therefore the demand projections were based on an extrapolation from history, not economic projections. As a consequence, 2018 through 2021 numbers remain unchanged and 2022 demand is projected to be comparable to 2021.

The revised projections for diesel new entrant technicians is shown below shaded in orange.

Revised Projections (a)	2016Est.	2017 Est.	2018	2019	2020	2021	2022
New Positions	7,450	4,182	4,245	4,308	0	0	0
+ Replacement	25,600	24,902	25,276	25,655	25,655	25,655	25,655
Total Demand	33,050	29,084	29,521	29,963	25,655	25,655	25,655
Prior Demand Projection			29,521	29,963	25,655	25,655	

Technician Supply

This report provides the preliminary completion data for automotive, collision and diesel technicians for the 2016-2017 year from IPEDS . For a discussion on the value and limitations of these numbers, please see the earlier report.

1. Postsecondary Automotive Completions

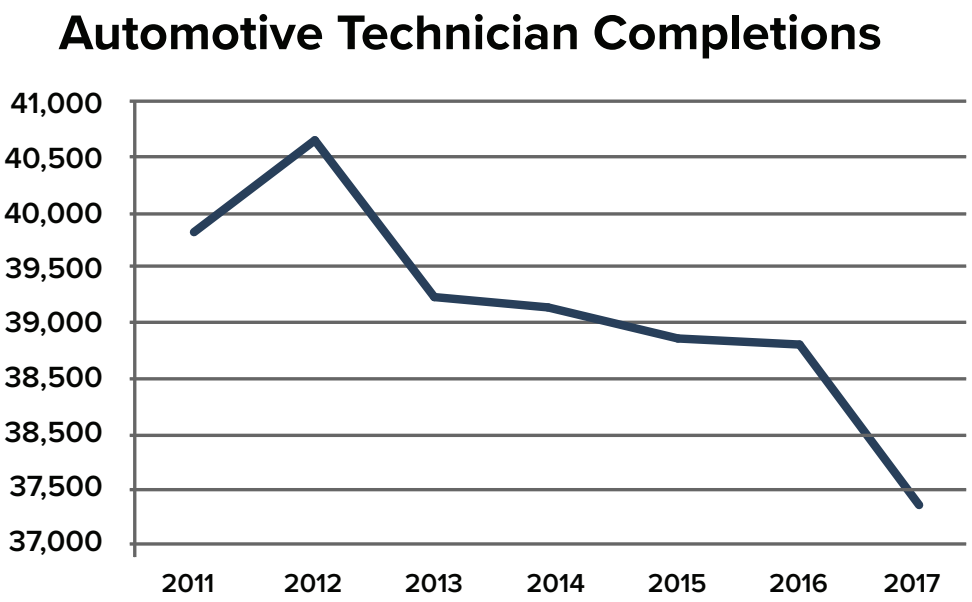
Automotive completions continued the downward trend explained in the prior report. Completions totaled 37,413 for 2017 (see table below).

Postsecondary Automotive Completions by Sector 2016-17 (a)

Sector	# Institutions	Auto Completions
Public, 4-year or above	76	2,864
Private not-for-profit, 4-year or above	11	712
Private for-profit, 4-year or above	2	97
Public, 2-year	551	21,793
Private not-for-profit, 2-year	7	471
Private for-profit, 2-year	46	8,532
Public, less-than 2-year	69	766
Private not-for-profit, less-than 2-year	4	134
Private for-profit, less-than 2-year	21	2,044
Grand Total	787	37,413

(a) Source: IPEDS database. Completions from first major, Automobile/Automotive Mechanics Technology/Technician programs, bachelor's and associate's degrees as well as certificates below the B.A. level. Preliminary data. https://nces.ed.gov/ipeds/datacenter/login.aspx

Based on the historical data cited in the prior report, the downward trend is shown in the chart below.



In 2017, the 10 largest providers of postsecondary automotive completions were:

Top 10 Postsecondary Automotive Providers 2017 (a)

Institution	# Completions
Universal Technical Institute of Arizona Inc	867
NASCAR Technical Institute (UTI)	634
Universal Technical Institute of California Inc	598
Universal Technical Institute of Texas Inc.	552
Universal Technical Institute of Northern California Inc	531
Universal Technical Institute of Pennsylvania Inc	522
Universal Technical Institute-Auto Motorcycle & Marine Mechanics Institute Division-Orlando	521
Ivy Tech Community College	471
Jefferson Community and Technical College	438
Universal Technical Institute of Illinois Inc	432
(a) Omits Mech-Tech which is based in Puerto Rico. Mech-Tech had 520 automotive comple-tions in 2017.	

2. Postsecondary Collision Completions

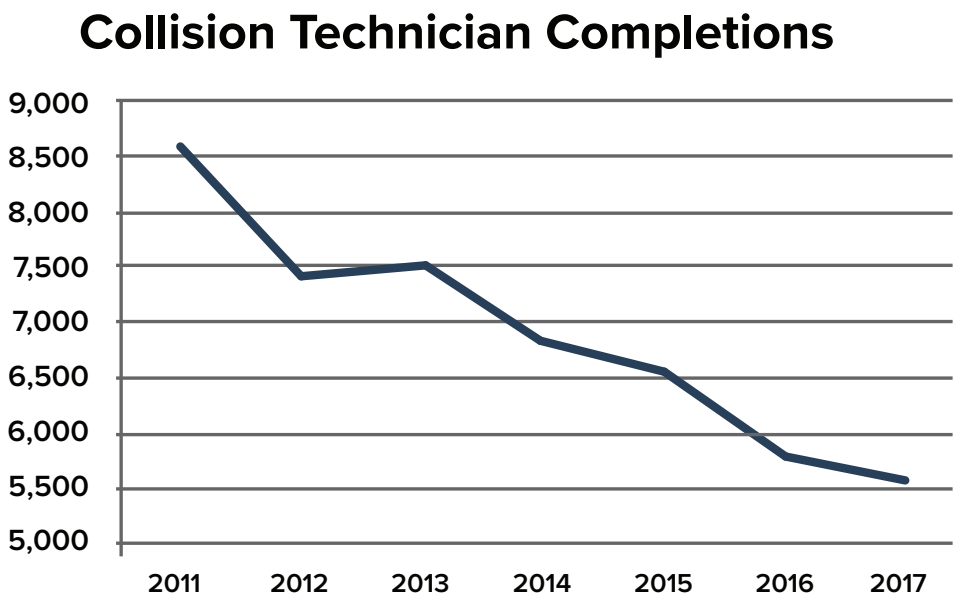
Collision completions continued the downward trend explained in the prior report. Completions totaled 5,564 for 2017 (see table below).

Postsecondary Collision Completions by Sector 2016-17 (a)

Sector	# Institutions	Auto Completions
Public, 4-year or above	26	278
Private not-for-profit, 4-year or above	4	37
Public, 2-year	252	3,697
Private not-for-profit, 2-year	2	224
Private for-profit, 2-year	14	849
Public, less-than 2-year	37	258
Private for-profit, less-than 2-year	5	221
Grand Total	340	5,564

(a) Source: IPEDS. Includes first major, Autobody/Collision and Repair Technology/ Techni-cian, for Bachelor's degree, Associate's degree, and certificates below the baccalaureate level. Preliminary data. https://nces.ed.gov/ipeds/datacenter/login.aspx

Based on the historical data cited in the prior report, the downward trend is shown in the chart below.



In 2017, the 10 largest providers of postsecondary collision completions were:

Top 10 Postsecondary Collision Providers 2017 (a)

Institution	# Collision Completions
Universal Technical Institute of Texas Inc.	141
Wyotech-Laramie	127 (b)
Fayetteville Technical Community College	126
Pikes Peak Community College	100
Ohio Technical College	99
Wyotech-Blairsville	97 (b)
San Jacinto Community College	93
Universal Technical Institute of Northern California Inc	93
Lincoln College of Technology-Nashville	87
Western Iowa Tech Community College	81

(a) Omits Mech-Tech and Automeca Technical College-Bayamon, which are based in Puerto Rico. Mech-Tech had 105 collision completions in 2017. Automeca had 101 completions.

(b) On Nov. 8, 2017, Zenith Education Group announced that its Wyotech campuses would be closed. On July 3, 2018 it was announced that a purchase was completed of WyoTech Laramie, and that campus would remain open.

3. Postsecondary Diesel Completions

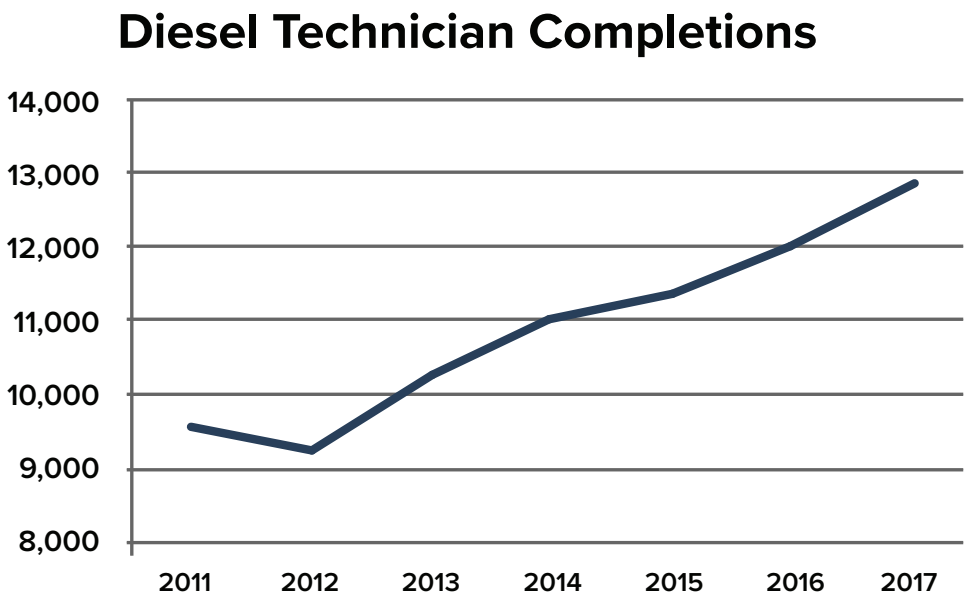
Diesel completions continued the upward trend explained in the prior report. Completions totaled 12,807 for 2017 (see table below).

Postsecondary Diesel Completions by Sector 2016-17 (a)

Sector	# Institutions	Auto Completions
Public, 4-year or above	38	989
Private not-for-profit, 4-year or above	3	556
Private for-profit, 4-year or above	1	68
Public, 2-year	208	6,463
Private not-for-profit, 2-year	5	558
Private for-profit, 2-year	31	3,536
Public, less-than 2-year	34	331
Private not-for-profit, less-than 2-year	1	43
Private for-profit, less-than 2-year	7	263
Grand Total	328	12,807

(a) Source: IPEDS database. Completions from first major, Diesel Mechanics Technology/ Technician programs, and from Medium/ Heavy Vehicle and Truck Technology/Technician, bachelor's and associate's degrees as well as certificates below the B.A. level. Preliminary data. https://nces.ed.gov/ipeds/datacenter/login.aspx

Based on the historical data cited in the prior report, the upward trend is shown in the chart below:



In 2017, the 10 largest providers of postsecondary diesel completions were:

Top 10 Postsecondary Diesel Providers 2017 (a)

Institution	# Diesel Completions
University of Northwestern Ohio	465
Universal Technical Institute of Arizona Inc	284
Lincoln College of Technology-Nashville	252
Ashland Community and Technical College	234
Universal Technical Institute of Pennsylvania Inc	229
Wyotech-Laramie	224 (a)
Universal Technical Institute of Illinois Inc	214
Central Community College	202
Elizabethtown Community and Technical College	199
New York Automotive and Diesel Institute	191
(a) On Nov. 8, 2017, Zenith Education Group announced that all of its WyoTech campuses would be closed. On July 3, 2018 it was announced that a purchase was completed of WyoTech Laramie, and that campus would remain open.	