

October 2023

Workforce Outcomes for Diesel Mechanic Technology Graduates

Employment and Earnings, 2018- 2022



Prepared by Mississippi State University's NSPARC

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ABOUT MISSISSIPPI'S SLDS

Mississippi's Statewide Longitudinal Data System (SLDS) is one of the most comprehensive systems in the country and includes administrative records from more than 25 education, workforce, and human service agencies in the state. The SLDS allows for the alignment of multiple sources of de-identified administrative data over time to evaluate educational or workforce strategies in terms of real outcomes, such as entrance into employment, wages, and skill gains.

PREPARED BY MISSISSIPPI STATE UNIVERSITY'S NSPARC

NSPARC, the National Strategic Planning & Analysis Research Center at Mississippi State University, is a trusted source for research addressing critical challenges faced by government, economic and workforce development professionals, educational institutions, nonprofits, and the private sector. Drawing on a team of social scientists, economists, data engineers, data analysts, and machine learning experts, NSPARC facilitates informed decision-making.

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OVERVIEW

This research brief provides summary information on the workforce outcomes of Mississippi public community college students who graduated from a *Diesel Mechanic Technology* program with an Associate of Applied Science degree, a Career Certificate, or a Technical Certificate.

This summary information was requested by AccelerateMS to support creation of appropriate workforce and education initiatives, and to support economic development across the state.

This analysis was conducted for students graduating in Academic Years (AY) 2018 through 2022. During this time period, seven of Mississippi's 15 public community colleges reported graduating students from a *Diesel Mechanic Technology* program. These schools include Copiah-Lincoln Community College, East Central Community College, East Mississippi Community College, Hinds Community College, Itawamba Community College, Northeast Mississippi Community College, and Southwest Mississippi Community College.

Results of the analysis show an average of 98 students graduate from *Diesel Mechanic Technology* programs across the state each year. Of these graduates, an average of 12 continue to pursue additional postsecondary education. The remaining 86 are available to enter the workforce full-time, and approximately 85% are successful in finding employment with a Mississippi within one year of graduation.

Earnings data for the most recent (AY 2022) cohort of graduates show that the employed graduates are earning approximately \$45,000 in their first year of employment. This is an increase of about \$15,000 compared to first-year earnings of the AY 2018 cohort.

DATA, INDICATORS, AND METHODOLOGY

DATA SOURCES

The data in this report were made available by the continued funding of Mississippi's State Longitudinal Data System (SLDS) through the state legislature. Specifically, the following data were used to measure workforce outcomes:

Mississippi Community College Data – Data on college graduates and enrollment come from the administrative records of Mississippi's 15 community colleges and

the Mississippi Community College Board (MCCB). These data include information on the enrollment, county of residence, academic major, and graduation of approximately 73,000 students each year. These data are updated annually with student records from the previous academic year.

Mississippi Employment and Wage Records – Data on employment status, county of employment, earnings, and sector of employment are contributed to the SLDS by the Mississippi Department of Employment Security (MDES). These data were collected from Mississippi employers that participate in the state’s Covered Employment system. Data fields include information on quarterly earnings, company of employment, employer location, and the employer’s industry classification code.

INDICATORS AND METHODOLOGY

Using these data, the following indicators were measured:

Total Graduates – The annual number of students graduating from Mississippi public community college *Diesel Mechanic Technology* program with an Associate of Applied Science degree, a Career Certificate, or a Technical Certificate in academic years 2018 through 2022. To avoid double-counting, students who have earned multiple awards in the same year are counted once and categorized by their highest award earned. The *Diesel Mechanic Technology* program is defined using the standardized Classification of Instructional Program (CIP) Code 47.0605; the exact title of this program may vary between different colleges.

Graduates not Re-Enrolled – The annual number of graduates who do not continue pursuing additional postsecondary education at one of Mississippi’s public community colleges or universities after graduation from their *Diesel Mechanic Technology* program. These graduates are utilized as the foundation for this report’s workforce measurements, because including re-enrolled full-time or part-time students would skew the measurement of a cohort’s overall employment and earnings.

Employed Graduates – The annual number of graduates who not re-enrolled and who are employed within 1 year of graduation by a Mississippi employer that participates in the state’s Covered Employment system.

Average Earnings (Median and Mean) – The average wages paid to employed graduates. This metric is calculated in accordance with the U.S. Department of Labor’s (DOL) WIOA Performance Guidance, which recommends measuring the median wages paid in the second quarter after exit from an instructional program and multiplying by 4 to create an annualized earnings measurement. For comparison, this calculation is also performed using mean wages.

RESULTS

Table 1 reports the total number of graduates of the *Diesel Mechanic Technology* programs, statewide, in AY 2018 through 2022.

Table 2 reports the number of graduates who are available for full-time work because they are not re-enrolled in other postsecondary education programs, alongside the number and percent of these graduates who are employed within one year of graduation.

Table 3 reports the median and mean annualized earnings for graduates who are employed within one year of graduation.

**TABLE 1: GRADUATES OF DIESEL MECHANIC TECHNOLOGY PROGRAMS,
AY 2018 - 2022**

	2018	2019	2020	2021	2022	5-Year Average
Total Graduates	97	106	79	106	104	98
<i>Associate Degree</i>	38	40	26	51	29	37
<i>Career Certificate</i>	20	32	28	22	33	27.0
<i>Technical Certificate</i>	39	34	25	33	42	35

Notes: Measured for graduates of Mississippi public community college Diesel Mechanic Technology programs (CIP 47.0605).

Source: Mississippi State Longitudinal Data System (SLDS), 2023.

**TABLE 2: EMPLOYMENT OF DIESEL MECHANIC TECHNOLOGY PROGRAM GRADUATES,
MEASURED FOR STUDENTS GRADUATING IN AY 2018 - 2022**

	2018	2019	2020	2021	2022	5-Year Average
Graduates not Re-Enrolled	81	90	72	97	90	86
Associate Degree	35	37	25	49	29	35
Career Certificate	13	21	26	19	29	22
Technical Certificate	33	32	21	29	32	29
Employed Graduates	69	70	64	86	78	73
Associate Degree	29	30	23	45	25	30
Career Certificate	10	13	21	17	22	17
Technical Certificate	30	27	20	24	31	26
Percent Employed	85.2%	77.8%	88.9%	88.7%	86.7%	85.3%
Associate Degree	82.9%	81.1%	92.0%	91.8%	86.2%	86.9%
Career Certificate	76.9%	61.9%	80.8%	89.5%	75.9%	76.9%
Technical Certificate	90.9%	84.4%	95.2%	82.8%	96.9%	89.8%

Notes: Measured for graduates of Mississippi public community college Diesel Mechanic Technology programs (CIP 47.0605).

Source: Mississippi State Longitudinal Data System (SLDS), 2023.

**TABLE 3: MEDIAN EARNINGS OF EMPLOYED GRADUATES,
MEASURED FOR STUDENTS GRADUATING IN AY 2018 - 2022**

	2018	2019	2020	2021	2022	5-Year Average
Median Earnings	\$30,144	\$33,371	\$34,064	\$36,861	\$46,042	\$36,268
Associate Degree	\$31,200	\$33,033	\$41,432	\$40,751	\$46,282	\$38,592
Career Certificate	\$23,076	\$34,301	\$19,985	\$33,663	\$46,582	\$35,144
Technical Certificate	\$32,495	\$33,335	\$34,250	\$27,807	\$45,869	\$35,253

Notes: Measured for graduates of Mississippi public community college Diesel Mechanic Technology programs (CIP 47.0605) who are employed within one year of graduation.

Source: Mississippi State Longitudinal Data System (SLDS), 2023.



SLDS

**Statewide Longitudinal
Data System**

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