GDL Framework
Safety Center

GDL Framework Data Input Template

Establishing the need: GDL for all novice drivers younger than 21

Introduction

Data illustrating the size or prevalence of a problem is essential to inform decision-making regarding elements of the Graduated Driver Licensing (GDL) Framework that may be relevant in each jurisdiction. This general tool was developed to help states gather important data indicators to gauge the involvement of novice drivers aged 18 to 20 years in road crashes. These data can inform discussion regarding a decision to apply GDL to all novice drivers under age 21, as opposed to just 16 and 17 year olds.

Each data input template has an associated answer template. The data input template helps calculate the numbers you will need, and the answer template summarizes all the answers from the data template for ease of analysis. The data metrics are part of a suggested template and can be modified if more practical metrics exist. (e.g., other age groups, range of data years or a rolling average when values are small). Please consult with data management or statistical analysis staff in your agency when interpreting the results from the template.

In some cases, these data are routinely collected and available in a state, and in other cases resources may be needed to capture these data. If this is not feasible, jurisdictions may consider relying on studies and data from other jurisdictions that have used these data to make the case for applying GDL to all novice drivers under age 21, and answered important research and policy questions related to this topic.

For the purposes of this data input template, "novice" drivers aged 18 to 20 years are defined as those who aged out of GDL program without completing it because they turned 18, and those who waited until age 18 or older to obtain their first learner permit and full license, thereby bypassing the GDL program.

TIRF

Licensing rates

Step 1

In your jurisdiction, how many novice drivers aged 18 years or older have aged out of GDL requirements in the past 5 years or bypassed them entirely by waiting until after they turn 18 to obtain a learner permit?

a. **Number that obtained their full license upon turning age 18 without completing the GDL program**

b. **Number that waited until after they turned 18 to obtain a learner permit and full license**

Calculate size of the problem **: 1a + 1b**

TOTAL 1

Step 2

In your jurisdiction, has the licensure rate per 100,000 population decreased for the following age groups during the past 5 years?

a. **Drivers aged 16 to 17 years**

Most recent data year

i. What is the total # of licensed drivers with a full driver's license aged 16 to 17 years in your jurisdiction?

ii. What is the total # of 16 to 17 year olds in your jurisdiction?

Calculate licensure rate for the most recent year:
# of licensed drivers aged 16 to 17/ # of 16 to 17 year olds in your jurisdiction =

X 100,000

TOTAL 2

5 years ago

iii. What was the total # of licensed drivers with a full driver's license aged 16 to 17 years in your jurisdiction

iv. What was the total # of 16 to 17 year olds in your jurisdiction?

Calculate licensure rate for the 5 years ago:
# of licensed drivers aged 16 to 17/ # of 16 to 17 year olds in your jurisdiction =

X 100,000

TOTAL 3

b. Drivers aged 18 to 20 years

Most recent data year

i. What is the total # of licensed drivers with a full driver's license aged 18 to 20 years in your jurisdiction

ii. What is the total # of 18 to 20 year olds in your jurisdiction?

Calculate licensure rate for the most recent year
# of licensed drivers aged 18 to 20/ # of 18 to 20 year olds in your jurisdiction =

X 100,000

TOTAL 4

5 years ago

iii. What was the total # of licensed drivers with a full driver's license aged 18 to 20 years in your jurisdiction

iv. What was the total # of 18 to 20 year olds in your jurisdiction?

Calculate licensure rate for the 5 years ago
# of licensed drivers aged 18 to 20/ # of 18 to 20 year olds in your jurisdiction =

X 100,000

TOTAL 5

c. Adult drivers aged 25 to 44 years

Most recent data year

i. What is the total # of licensed drivers with a full driver's license aged 25 to 44 years in your jurisdiction

ii. What is the total # of 25 to 44 year olds in your jurisdiction?

Calculate licensure rate for the most recent year
# of licensed drivers aged 25 to 44/ # of 25 to 44 year olds in your jurisdiction =

X 100,000

TOTAL 6

5 years ago

iii. What was the total # of licensed drivers with a full driver's license aged 25 to 44 years in your jurisdiction

iv. What was the total # of 25 to 44 year olds in your jurisdiction?

Calculate licensure rate for the 5 years ago
# of licensed drivers aged 25 to 44/ # of 25 to 44 year olds in your jurisdiction =

X 100,000

TOTAL 7

Crash & conviction rates

Step 1

Calculate the current and past (5 years ago) crash rates and conviction rates in your jurisdiction. For this calculation, you will need the total crashes and total convictions from the most recent data year available, as well as the totals from 5 years ago. Complete this calculation for novice drivers aged 16 to 17, novice drivers aged 18 to 20, drivers aged 18 to 20 years who completed GDL before turning 18, and drivers aged 25 to 44 years.

a. Drivers aged 16 to 17 years

Most recent data year

i. What is the total # of crashes for novice drivers aged 16 to 17 years in your jurisdiction ?
Note. Total crashes include fatal, injury, and property damage crashes.

ii. What is the total # of traffic convictions for novice drivers aged 16 to 17 years in your jurisdiction?

iii. What was the total # of drivers aged 16 to 17 years in your jurisdiction ?

Calculate crash rate for the most recent year
# of crashes / # of drivers =

X 100,000

TOTAL 8

Calculate conviction rate for the most recent year
# of traffic convictions / # of drivers =

X 100,000

TOTAL 9

5 years ago

iv. What is the total # of crashes for novice drivers aged 16 to 17 years in your jurisdiction ?
Note. Total crashes include fatal, injury, and property damage crashes.

v. What is the total # of traffic convictions for novice drivers aged 16 to 17 years in your jurisdiction?

vi. What was the total # of drivers aged 16 to 17 years in your jurisdiction ?

Calculate crash rate for 5 years ago
# of crashes / # of drivers =

X 100,000

TOTAL 10

Calculate conviction rates for 5 years ago

# of traffic convictions / # of drivers =

X 100,000

TOTAL 11

b. Novice drivers aged 18 to 20 years

Most recent data year

i. What is the total # of crashes for novice drivers aged 18 to 20 years in your jurisdiction ?
Note. Total crashes include fatal, injury, and property damage crashes.

ii. What is the total # of traffic convictions for novice drivers drivers aged 18 to 20 years in your jurisdiction?

iii. What was the total # of drivers aged 18 to 20 years in your jurisdiction ?

Calculate crash rate for the most recent year

# of crashes / # of drivers =

X 100,000

TOTAL 12

Calculate conviction rate for the most recent year

# of traffic convictions / # of drivers =

X 100,000

TOTAL 13

5 years ago

iv. What is the total # of crashes for novice drivers aged 18 to 20 years in your jurisdiction ?
Note. Total crashes include fatal, injury, and property damage crashes.

v. What is the total # of traffic convictions for novice drivers drivers aged 18 to 20 years in your jurisdiction?

vi. What was the total # of drivers aged 18 to 20 years in your jurisdiction ?

Calculate crash rate for 5 years ago

# of crashes / # of drivers =

X 100,000

TOTAL 14

Calculate conviction rate for 5 years ago

# of traffic convictions / # of drivers =

X 100,000

TOTAL 15

c. Drivers aged 18 to 20 who have completed GDL before turning 18

Most recent data year

i. What is the total # of crashes for drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?
Note. Total crashes include fatal, injury, and property damage crashes.

ii. What is the total # of traffic convictions for drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?

iii. What was the total # of drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?

Calculate crash rate for the most recent year
# of crashes / # of drivers =

X 100,000

TOTAL 16

Calculate conviction rate for the most recent year
# of traffic convictions / # of drivers =

X 100,000

TOTAL 17

5 years ago

iv. What is the total # of crashes for drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?
Note. Total crashes include fatal, injury, and property damage crashes.

v. What is the total # of traffic convictions for drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?

vi. What was the total # of drivers aged 18 to 20 who have completed GDL before turning 18 in your jurisdiction?

Calculate crash rate for 5 years ago
# of crashes / # of drivers =

X 100,000

TOTAL 18

Calculate conviction rates for 5 years ago
# of traffic convictions / # of drivers =

X 100,000

TOTAL 19

d. Adult drivers aged 25 to 44 years

Most recent data year

i. What is the total # of crashes for drivers aged 25 to 44 years in your jurisdiction?
Note. Total crashes include fatal, injury, and property damage crashes.

ii. What is the total # of traffic convictions for drivers aged 25 to 44 in your jurisdiction?

iii. What was the total # of drivers aged 25 to 44 in your jurisdiction?

Calculate crash rate for the most recent year
# of crashes / # of drivers =

X 100,000

TOTAL 20

Calculate conviction rate for the most recent year
# of traffic convictions / # of drivers =

X 100,000

TOTAL 21

5 Years ago

iv. What is the total # of crashes for drivers aged 25 to 44 in your jurisdiction?
Note. Total crashes include fatal, injury, and property damage crashes.

v. What is the total # of traffic convictions for drivers aged 25 to 44 in your jurisdiction?

vi. What was the total # of drivers aged 25 to 44 in your jurisdiction?

Calculate crash rate for 5 years ago
# of crashes / # of drivers =

X 100,000

TOTAL 22

Calculate conviction rate for 5 years ago
# of traffic convictions / # of drivers =

X 100,000

TOTAL 23

Step 2

How do the crash & conviction rates of novice drivers age 18-20 compare to the other three groups in the most recent year and 5 years ago? Take the crash and conviction rates calculated in the previous step and insert them in the table below.

Age categories	Crash Rates		Conviction rates	
	Most recent year	5 years ago	Most recent year	5 years ago
Novice drivers aged 18-20 years				
Drivers aged 16-17 years				
Drivers aged 18-20 years who have completed GDL before turning 18				
Drivers aged 25-44 years				

Step 3

For each age group, determine the percentage of change in the crash and conviction rates in the past 5 years. Use the crash and conviction rates from the previous question to calculate the percentage of change between current and past years for each age group.

**If the answer for percentage change is negative, then this means that there was a decrease in the crash or conviction rate. If the answer is positive, then there was an increase in the rates of crashes or convictions.*

a. Drivers aged 16 to 17 years

Crash rate percentage of change

i. Crash rate for 5 years ago (aged 16 to 17) ☐

ii. Crash rate for the most recent year (aged 16 to 17) ☐

Calculate percentage of change for crash:

$$\frac{\text{Crash rate (most recent year)-Crash rate (5 years ago)}}{\text{Crash rate (5 years ago)}}$$ ☐

X 100

TOTAL 24 ☐

TOTAL 25 Increase / Decrease

Conviction rate percentage of change

iii. Conviction rate for 5 years ago (aged 16 to 17) ☐

iv. Conviction rate for the most recent year (aged 16 to 17) ☐

Calculate percentage of change for conviction:

$$\frac{\text{Conviction rate (most recent year)-Conviction rate (5 years ago)}}{\text{Conviction rate (5 years ago)}}$$ ☐

X 100

TOTAL 26 ☐

TOTAL 27 Increase / Decrease

b. Novice drivers aged 18 to 20 years

Crash rate percentage of change

i. Crash rate for 5 years ago (aged 18 to 20) ☐

ii. Crash rate for the most recent year (aged 18 to 20) ☐

Calculate percentage of change for crash:

$$\frac{\text{Crash rate (most recent year)-Crash rate (5 years ago)}}{\text{Crash rate (5 years ago)}}$$ ☐

X 100

TOTAL 28 ☐

TOTAL 29 Increase / Decrease

Conviction rate percentage of change

iii. Conviction rate for 5 years ago (aged 18 to 20)

iv. Conviction rate for the most recent year (aged 18 to 20)

Calculate percentage of change for conviction:

$$\frac{\text{Conviction rate (most recent year)-Conviction rate (5 years ago)}}{\text{Conviction rate (5 years ago)}}$$

X 100

TOTAL 30

TOTAL 31 Increase / Decrease

c. Drivers aged 18 to 20 who have completed GDL before turning 18

Crash rate percentage of change

i. Crash rate for 5 years ago (aged 18 to 20 who have completed GDL before turning 18)

ii. Crash rate for the most recent year (aged 18 to 20 who have completed GDL before turning 18)

Calculate percentage of change for crash:

$$\frac{\text{Crash rate (most recent year)-Crash rate (5 years ago)}}{\text{Crash rate (5 years ago)}}$$

X 100

TOTAL 32

TOTAL 33 Increase / Decrease

Conviction rate percentage of change

iii. Conviction rate for 5 years ago (aged 18 to 20 who have completed GDL before turning 18)

iv. Conviction rate for the most recent year (aged 18 to 20 who have completed GDL before turning 18)

Calculate percentage of change for conviction:

$$\frac{\text{Conviction rate (most recent year)-Conviction rate (5 years ago)}}{\text{Conviction rate (5 years ago)}}$$

X 100

TOTAL 34

TOTAL 35 Increase / Decrease

d. Adult drivers aged 25 to 44 years

Crash rate percentage of change

i. Crash rate for 5 years ago (aged 25 to 44)

ii. Crash rate for the most recent year (aged 25 to 44)

Calculate percentage of change for crash:

$$\frac{\text{Crash rate (most recent year)-Crash rate (5 years ago)}}{\text{Crash rate (5 years ago)}}$$

X 100

TOTAL 36

TOTAL 37

Increase / Decrease

Conviction rate percentage of change

iii. Conviction rate for 5 years ago (aged 25 to 44)

iv. Conviction rate for the most recent year (aged 25 to 44)

Calculate percentage of change for conviction:

$$\frac{\text{Conviction rate (most recent year)-Conviction rate (5 years ago)}}{\text{Conviction rate (5 years ago)}}$$

X 100

TOTAL 38

TOTAL 39

Increase / Decrease

Step 4

How does the percentage change in crash and conviction rates for novice drivers aged 18 to 20 years compare to the percentage change in crash and conviction rates of the other three age groups? Use the percentage of change for crash and conviction rates from the previous question to answer the questions below.

Compare

a. Crash rate percentage of change

i. Percentage of change for crash rate (aged 16 to 17)

ii. Percentage of change for crash rate (novice drivers aged 18 to 20)

iii. Percentage of change for crash rate (aged 18 to 20 who have completed GDL before turning 18)

iv. Percentage of change for crash rate (aged 25 to 44)

Compare

b. Conviction rate percentage of change

i. Percentage of change for conviction rate (aged 16 to 17)

ii. Percentage of change for conviction rate (novice drivers aged 18 to 20)

iii. Percentage of change for conviction rate (aged 18 to 20 who have completed GDL before turning 18)

iv. Percentage of change for conviction rate (aged 25 to 44)

Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.

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