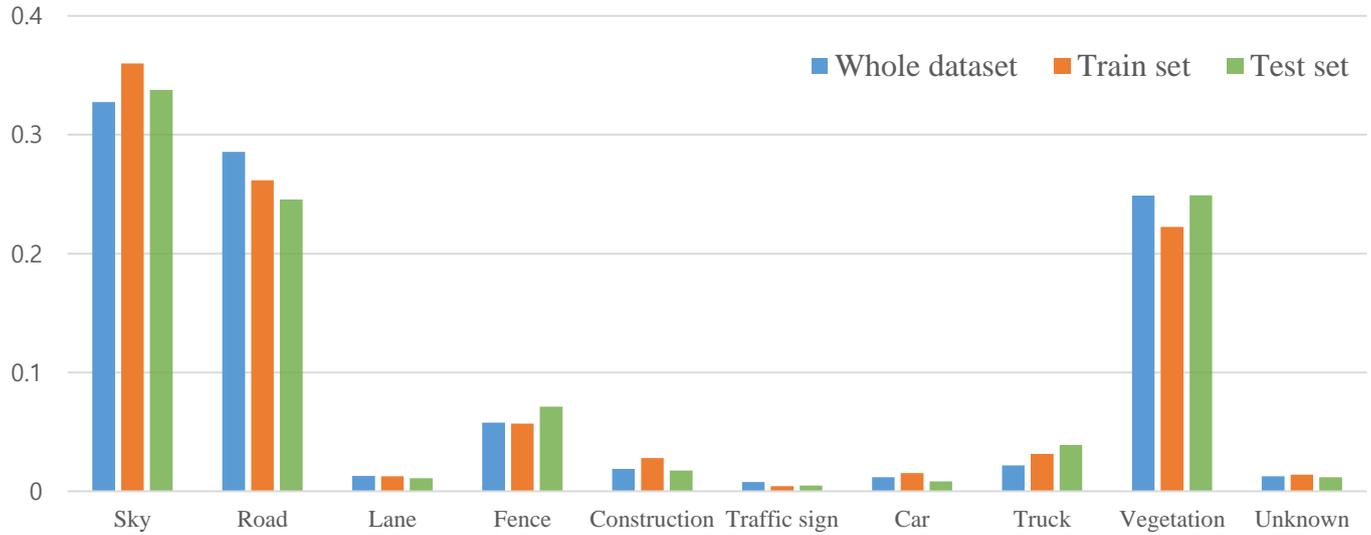


A. Statistics

Here, we present the proportion of annotated pixels per classes. We carefully split the dataset into train and test sets, so that train and test sets has the same distribution with each other. Although they are not “identically” split, the graph below shows they have similar distribution over every defined classes.



B. Colors

Including this supplementary material, the each pixel of annotations is colored depend on the corresponding class. The colormap for each class is the same as follows.

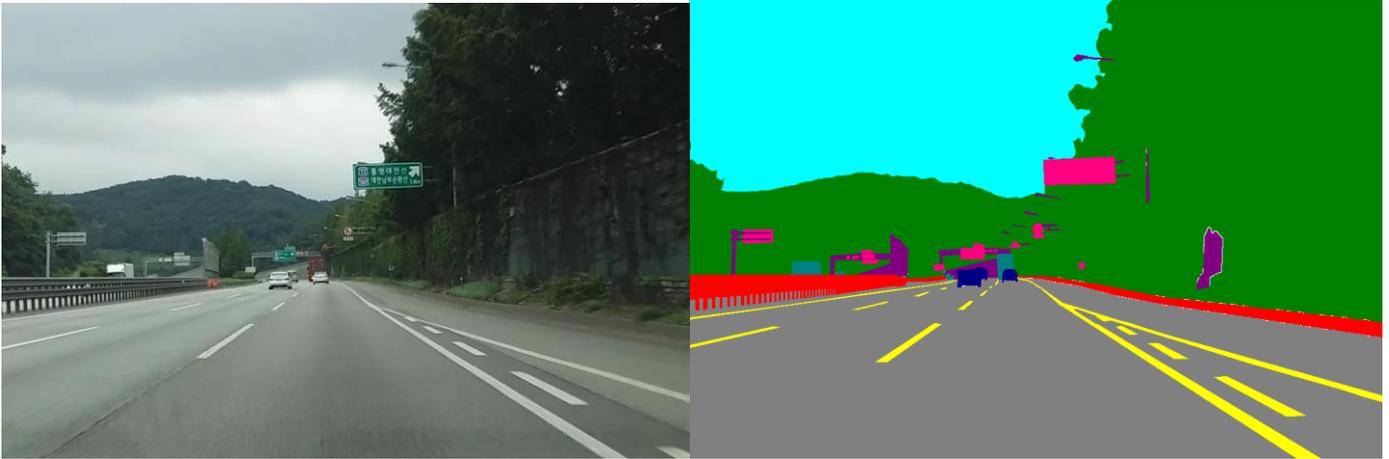
Class	(R,G,B)	Color
Sky	(0,255,255)	Cyan
Road	(128,128,128)	Grey
Lane	(255,255, 0)	Yellow
Fence	(255, 0, 0)	Red
Construction	(128, 0,128)	Purple
Traffic Sign	(255, 0,128)	Magenta
Car	(0, 0,128)	Dark Blue
Truck	(0,128,128)	Teal
Vegetation	(0,128, 0)	Green
Unknown	(255,255,255)	White

C. Class Definition

As mentioned in the main paper, the annotation consists of ten classes: Road, Lane, Sky, Fence, Construction, Traffic sign, Car, Truck, Vegetation, and Unknown. Here, we define each class and show some examples if necessary.

1. Road, Sky, Vegetation

These are the classes with most straight forward definition. They literally represent the area of road, sky, and vegetation, respectively. May-existing objects on the sky, such as cloud or birds, were ignored.



2. Lane

Lane class is unique class in the Highway Driving dataset. It is not a common class in semantic segmentation dataset. Although there exists “Lane markings drivable” class in CamVid dataset, most of the algorithm ignore the class since it covers tiny region. For the lane class, every marks drawn on the road except to separate each lane are ignored and annotated as road class. In the following example, there are marks on the road to alarm the speed limit. However, corresponding region is annotated as road, since they are not drawn to separate each lane. We build the criteria because the lane is very important information for autonomous driving, so that we’d like to emphasize the lane class.



3. Car and Truck (Vehicles)

Since the Highway Driving dataset assumes driving scenario, one of the most important classes is vehicle. Although the lane can guide the driving path, recognizing other vehicles is essential requirement for autonomous driving. We separated vehicles into two subclasses: car and truck. Car class includes sedan, saloon, or light-weighted vehicles. On the other hand, truck class includes lorry, transporter, bus, or literally truck.



4. Fence, Traffic sign, and Construction

Construction is an umbrella term which can cover every class except the sky, vehicles, and vegetation class. However, we differentiate the fence and traffic sign class since they are notice-worthy for autonomous driving scenario on the highway. Every traffic sign in the scene are annotated separately. The poles holding the traffic signs are annotated as construction, since they do not contain any information for driving.

We define the fence class as the structures at both road side. Naturally, it contains the median strip. The example below shows how we differentiate these three classes.

