- 1. Adding a new field in the attribute table
 - a. ArcGIS allows you to modify the structure of shapefiles and dBASE tables by adding and deleting <u>fields</u> or <u>attribute</u> columns. The name and <u>data type</u> of an existing field can't be modified; instead, you must add a new field with the appropriate name and data type. A field's name must be no more than 10 characters in length; additional characters will be truncated.

A shapefile's FID and Shape field and a dBASE table's OID field can't be deleted. The OID field is a virtual column created by ArcGIS software when accessing the table's contents; it guarantees that each record in the table has at least one unique value. Shapefiles and dBASE tables must have at least one attribute field in addition to the FID and Shape fields or the OID field. After adding fields, you must start an edit session in ArcMap to define their attribute values.

The field data types supported by ArcGIS are discussed in <u>Geodatabase field data types</u>. The data mapping section in <u>How data converts when importing</u> has tables that show how data types for several data sources are mapped to the ArcGIS geodatabase field data types.

b. Adding a field in ArcMap

- i. In ArcMap, right-click the shapefile layer in the table of contents and click Open Attribute Table.
- ii. Click the Options button and click Add Field.
- iii. Type a field name in the Name text box.
- iv. Click the Type drop-down arrow and click a type.
- v. The properties that are appropriate to the new field's data type appear in the Field Properties list.
- vi. Click in the Field Properties list and type the properties.

Properties may include

- vii. Precision—The number of digits that can be stored in a number field. For example, the number 56.78 has a precision of 4.
- viii. Scale—The number of digits to the right of the decimal point in a number in a field of type float or double. For example, the number 56.78 has a scale of 2.
 Scale is only used for Float and Double field types.
- ix. Length—The length of a text field specified in characters
- x. Click OK.