Step 1- 1NF

census
CensusId
CensusYear
State
County
TotalPop
Men
Women
Hispanic
White
Black
Native
Asian
Pacific
Citizen
Income
IncomeErr
IncomePerCap
IncomePerCapErr
Poverty
ChildPoverty
Professional
Service
Office
Construction
Production
Drive
Carpool
Transit
Walk
OtherTransp

Primary Key   Primary Key

Morality
Mort_ID
County
State
FIPS
Category
MR_2015
MR_2015_Min
MR_2015_Max
MR_2017
MR_2017_Min
MR_2017_Max
Change_2015_2017
Change_2015_2017_Min
Change_2015_2017_Max

1st Normal form	
There are no repeating groups	Yes
Data atomic	Yes
Each field has unique name	Yes
Primary Key	Yes

Step 2- 2NF

census
CensusId
CensusYear
County_ID
~~State~~
~~County~~
TotalPop
Men
Women
Hispanic
White
Black
Native
Asian
Pacific
Citizen
Income
IncomeErr
IncomePerCap
IncomePerCapErr
Poverty
ChildPoverty
Professional
Service
Office
Construction
Production
Drive
Carpool
Transit
Walk
OtherTransp

Partial dependency   Partial dependency

Morality
Mort_ID
FIPS
Category_ID
~~Category~~
MR_2015
MR_2015_Min
MR_2015_Max
MR_2017
MR_2017_Min
MR_2017_Max
Change_2015_2017
Change_2015_2017_Min
Change_2015_2017_Max

Category
Category_ID
Category

County
County_ID
County
State

2nd Normal form	
First normal form	Yes
All non-key attributes are dependent	Yes
Eliminate partial dependencies	Yes

Step 3- 3NF

Morality
Mort_ID
County_ID
State_ID
FIPS
Category_ID
MR_2015
MR_2015_Min
MR_2015_Max
MR_2017
MR_2017_Min
MR_2017_Max
Change_2015_2017
Change_2015_2017_Min
Change_2015_2017_Max

Category
Category_ID
Category

census
CensusId
CensusYear
State_ID
County_ID
TotalPop
Men
Women
Hispanic
White
Black
Native
Asian
Pacific
Citizen
Income
IncomeErr
IncomePerCap
IncomePerCapErr
Poverty
ChildPoverty
Professional
Service
Office
Construction
Production
Drive
Carpool
Transit
Walk
OtherTransp

Transitive dependency

County
County_ID
County
~~State~~
State_ID

State
State_ID
State

3rd Normal form	
First normal form	Yes
2nd normal form	Yes
Eliminate transitive dependencies	Yes