## Explanation of the 2010 Census Tract Relationship File:

The 2010 Census Tract Relationship File is provided as a tool to help data users compare the universe of Census 2000 tracts to the universe of 2010 Census tracts. Each record in the relationship files represents one polygon that is formed when the 2010 Census tracts overlay the Census 2000 tracts. Some of the polygons are very small in area, while others are larger, but each record in the tract relationship file describes the 2000 and the 2010 geography that falls within that polygon. It is important to note that all population figures given in the files are from the 2010 Census population count.

## Explanation of the $\mathbf{2 0 1 0}$ Census Tract Relationship File: Example 1: No Change

In this simple example, the Census 2000 tract 965000 and the 2010 Census tract 965000 have the same boundary and share the same area. Therefore, only one polygon is formed when you lay the 2010 Census tracts over the Census 2000 tracts and there is only one record in the tract relationship files for this example. The 2010 population for both the Census 2000 tract and the 2010 Census tract is 5,017 and the total area is $827,553,078 \mathrm{~m}^{2}$. Below is the record from the tract relationship file and a map of the area.

| Field | Value |
| :---: | :---: |
| STATE00 | 08 |
| COUNTY00 | 029 |
| TRACT00 | 965000 |
| GEOIDOO | 08029965000 |
| POP00 | 5017 |
| HU00 | 2465 |
| PART00 | W |
| AREA00 | 827553078 |
| AREALAND00 | 824172988 |
| STATE 10 | 08 |
| COUNTY10 | 029 |
| TRACT10 | 965000 |
| GEOID10 | 08029965000 |
| POP10 | 5017 |
| HU10 | 2465 |
| PART10 | W |
| AREA10 | 827553078 |
| AREALAND10 | 824172988 |
| AREAPT | 827553078 |
| AREALANDPT | 824172988 |
| AREAPCTOOPT | 100.00 |
| AREALANDPCTOOPT | 100.00 |
| AREAPCT10PT | 100.00 |
| AREALANDPCT10PT | 100.00 |
| POP10PT | 5017 |
| POPPCT00 | 100.00 |
| POPPCT10 | 100.00 |
| HU10PT | 2465 |
| HUPCT00 | 100.00 |
| HUPCT10 | 100.00 |



In this example, the Census 2000 census tract 963800 has been revised slightly for 2010 and 2010 Census tract 963800 now extends south into Census 2000 tract 963600 . Small revisions each decade are allowed, but should not affect a large portion of the population. It is difficult to compare census tracts from decade to decade when a revision has taken place, so it is necessary that the boundary change does not affect a large portion of the population. In the example below, the 2010 population for the Census 2000 tract 963800 is 4,461 while the 2010 population for the 2010 Census tract 963800 is 4,501 . In addition, the total area for the Census 2000 tract 963800 is $793,173,214 \mathrm{~m}^{2}$ while the total area for the 2010 Census tract 963800 is $845,726,965 \mathrm{~m}^{2}$. The Census 2000 tract 963800 is wholly within the 2010 Census tract 963800 , so there is a $W$ in the PART00 field. However, the 2010 Census tract 963800 is not wholly within the Census 2000 tract 963800 , so there is a P in the PART10 field for that record (Record 1). Since the new 2010 Census tract 963800 has been revised, it now crosses into another Census 2000 tract: 963600, therefore there is an additional polygon and record (Record 2). The 2010 population count for this polygon is 40 and only represents $0.89 \%$ of the population living within 2010 Census tract 963800 . So, the revision did not affect a large portion of the population. Below are the records from the tract relationship file and a map of the area.

| Field | Value for Record 1 | Value for Record 2 |
| :---: | :---: | :---: |
| STATE 00 | 08 | 08 |
| COUNTYOO | 051 | 051 |
| TRACT00 | 963800 | 963600 |
| GEOID00 | 08051963800 | 08051963600 |
| POP00 | 4461 | 3834 |
| HU00 | 4126 | 3154 |
| PART00 | W | P |
| AREA00 | 793173214 | 3330782114 |
| AREALAND00 | 792398485 | 3320042122 |
| STATE 10 | 08 | 08 |
| COUNTY10 | 051 | 051 |
| TRACT10 | 963800 | 963800 |
| GEOID10 | 08051963800 | 08051963800 |
| POP10 | 4501 | 4501 |
| HU10 | 4150 | 4150 |
| PART10 | P | P |
| AREA10 | 845726965 | 845726965 |
| AREALAND10 | 844937722 | 844937722 |
| AREAPT | 793173214 | 52553751 |
| AREALANDPT | 792398485 | 52539237 |
| AREAPCTOOPT | 100.00 | 1.58 |
| AREALANDPCTOOPT | 100.00 | 1.58 |
| AREAPCT10PT | 93.79 | 6.21 |
| AREALANDPCT10PT | 93.78 | 6.22 |
| POP10PT | 4461 | 40 |
| POPPCT00 | 100.00 | 1.04 |
| POPPCT10 | 99.11 | 0.89 |
| HU10PT | 4126 | 24 |
| HUPCT00 | 100.00 | 0.76 |
| HUPCT10 | 99.42 | 0.58 |



## Explanation of the 2010 Census Tract Relationship File: Example 3: Merge

In the example below, Census 2000 tracts 000100 and 000200 merged together to form 2010 Census tract 000600 . The 2010 population for Census 2000 tract 000100 is 857 and the population for tract 000200 is 751 . The 2010 population for the 2010 Census tract 000600 is 1,608 . In addition, the total area for 2000 Census tract 000100 is $8,956,127,151 \mathrm{~m}^{2}$ and the total area for 2000 Census tract 000200 is $2,928,158,060 \mathrm{~m}^{2}$. The total area for the 2010 Census tract 000600 is $11,884,327,258 \mathrm{~m}^{2}$. Record 1 shows that Census 2000 tract 000100 falls wholly within 2010 Census tract 000600 , since there is a W in the PART00 field. Record 2 shows that Census 2000 tract 000200 does not fall wholly within 2010 Census tract 000600 , since there is a P in the PART00 field for this record. This is because a small sliver of Census 2000 tract 000200 crosses into another 2010 Census tract in a different county (shown in the red box on the map). Record 3 in the example below refers to the small sliver that was formed due to a small boundary correction that has occurred over the past decade. Record 3 shows that there is no population living within the small sliver since the POP 10PT is 0 . Therefore, if you wanted to compare the population change between 2000 and 2010, you would compare the 2000 population of Census 2000 tracts 000100 and 000200 to the 2010 population of 2010 Census tract 000600 . Below are the records from the tract relationship file and a map of the area.

| Field | Value for Record 1 | Value for Record 2 | Value for Record 3 |
| :---: | :---: | :---: | :---: |
| STATE 00 | 08 | 08 | 08 |
| COUNTY00 | 081 | 081 | 081 |
| TRACT00 | 000100 | 000200 | 000200 |
| GEOIDOO | 08081000100 | 08081000200 | 08081000200 |
| POP00 | 857 | 751 | 751 |
| HU00 | 532 | 483 | 483 |
| PART00 | W | P | P |
| AREA00 | 8956127151 | 2928158060 | 2928158060 |
| AREALANDOO | 8942176703 | 2924140283 | 2924140283 |
| STATE 10 | 08 | 08 | 08 |
| COUNTY10 | 081 | 081 | 103 |
| TRACT10 | 000600 | 000600 | 951100 |
| GEOID10 | 08081000600 | 08081000600 | 08103951100 |
| POP10 | 1608 | 1608 | 3858 |
| HU10 | 1015 | 1015 | 2097 |
| PART10 | P | P | P |
| AREA10 | 11884327258 | 11884327258 | 5161012537 |
| AREALAND10 | 11866359033 | 11866359033 | 5156178677 |
| AREAPT | 8956127151 | 2928144943 | 13117 |
| AREALANDPT | 8942176703 | 2924127166 | 13117 |
| AREAPCTOOPT | 100.00 | 100.00 | 0.00 |
| AREALANDPCTOOPT | 100.00 | 100.00 | 0.00 |
| AREAPCT10PT | 75.36 | 24.64 | 0.00 |
| AREALANDPCT10PT | 75.36 | 24.64 | 0.00 |
| POP10PT | 857 | 751 | 0 |
| POPPCT00 | 100.00 | 100.00 | 0.00 |
| POPPCT10 | 53.30 | 46.70 | 0.00 |
| HU10PT | 532 | 483 | 0 |
| HUPCT00 | 100.00 | 100.00 | 0.00 |
| HUPCT10 | 52.41 | 47.59 | 0.00 |



In the example below, Census 2000 tract 001903 was divided into two 2010 Census tracts: 001907 and 001908 . The 2010 population for Census 2000 tract 001903 is 5,775 . The 2010 population for 2010 Census tract 001907 is 2,775 and for 2010 Census tract 001908 is 3,000 . In addition, the total area of Census 2000 tract 001903 is $127,067,755 \mathrm{~m}^{2}$. The total area of 2010 Census tract 001907 is $50,049,249 \mathrm{~m}^{2}$ and for 2010 Census tract 001908 is $77,018,506 \mathrm{~m}^{2}$. Both 2010 Census tracts 001907 and 001908 fall wholly within Census 2000 tract 001903 , so there is a W in both PART10 fields. However, since Census 2000 tract 001903 is divided into the two 2010 Census tracts, there is a P in the PARTOO field for both records. If you wanted to compare the population change between 2000 and 2010 , you would need the 2000 population for Census 2000 tract 001903 and compare it to the 2010 population for both 2010 Census tracts 001907 and 001908 . Below are the records from the tract relationship file and a map of the area.

| Field | Value for Record 1 | Value for Record 2 |
| :---: | :---: | :---: |
| STATE 00 | 08 | 08 |
| COUNTYOO | 123 | 123 |
| TRACTOO | 001903 | 001903 |
| GEOID00 | 08123001903 | 08123001903 |
| POP00 | 5775 | 5775 |
| HU00 | 2136 | 2136 |
| PART00 | P | P |
| AREA00 | 127067755 | 127067755 |
| AREALAND00 | 126186663 | 126186663 |
| STATE 10 | 08 | 08 |
| COUNTY10 | 123 | 123 |
| TRACT10 | 001907 | 001908 |
| GEOID10 | 08123001907 | 08123001908 |
| POP10 | 2775 | 3000 |
| HU10 | 1047 | 1089 |
| PART10 | W | W |
| AREA10 | 50049249 | 77018506 |
| AREALAND10 | 49749348 | 76437315 |
| AREAPT | 50049249 | 77018506 |
| AREALANDPT | 49749348 | 76437315 |
| AREAPCTOOPT | 39.39 | 60.61 |
| AREALANDPCTOOPT | 39.43 | 60.57 |
| AREAPCT10PT | 100.00 | 100.00 |
| AREALANDPCT10PT | 100.00 | 100.00 |
| POP10PT | 2775 | 3000 |
| POPPCT00 | 48.05 | 51.95 |
| POPPCT10 | 100.00 | 100.00 |
| HU10PT | 1047 | 1089 |
| HUPCT00 | 49.02 | 50.98 |
| HUPCT10 | 100.00 | 100.00 |



