

# An Analysis of the Births & Deaths in Lackawanna & Luzerne Counties

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The **INSTITUTE** for  

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Public Policy & Economic Development

*A partnership among Keystone College, King's College, Luzerne County Community College, Marywood University, Misericordia University, Penn State Wilkes-Barre, The Commonwealth Medical College, University of Scranton, & Wilkes University*

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## Executive Summary

The Institute for Public Policy & Economic Development (the “Institute”) has completed research on Lackawanna and Luzerne County birth and death. The purpose of this study is to evaluate the number of births and deaths, and determine whether or not the population is increasing or decreasing in each of the counties analyzed. This study reviews the records for birth by gender and race from the years 1990-2008. The report also identifies the deaths by gender and race through the year 2008. For purposes of this study only three race categories were included: White (Caucasian), Black (African American) and Other (incorporates all other races).

Data used in this study were derived from the U.S. Census Bureau and the Pennsylvania Department of Health’s, Bureau of Health Statistics and Research.

In Lackawanna County, from 1990 through 2008, there were 9,310 more deaths than births; births totaled 43,804 and up to 2008, deaths totaled 53,114. The number of births in the county ranged from 2,100 to 2,700 per year, while the deaths ranged from 2,600 to 2,900 per year. In no year did Lackawanna County’s number of births exceed the number of deaths.

Throughout the same time span in Luzerne County, there were 19,953 more deaths than births, from 1990 to 2008, births totaled 61,780 and in 1990 to 2008, deaths totaled 81,733. The county’s births ranged from 2,900 to 3,800 per year, and its deaths ranged from 4,000 to 4,500 per year. In no year did Luzerne County’s births exceed deaths. Given the county’s older population these statistics are not uncommon. It is predictable; however, that in-migration brings with it a younger population and a possibility that the births will at some point exceed deaths in the near future.

In the future, The Institute intends to prepare a summary of this study to compare with other county migration reports. Such comparisons will help determine whether the county experienced real population growth. Migration studies from both counties show that, since 2002, more people have been moving into the region rather than leaving it.

All birth and death figures were retrieved from the Pennsylvania Department of Health while population statistics were obtained from the U.S. Census Bureau.

## Lackawanna County Population

From 1990 through 2008 Lackawanna County reported more deaths than births. From 1996 to 1999, Lackawanna County experienced its greatest decline in the number of births, but at the same time experienced its greatest increase in deaths. The county’s population corresponded directly with these fluctuations.

**Table 1: Lackawanna County Population & Births/Deaths**

Population 1990-2008		Birth and Death Records 1990-2008		
Year	Population	Year	Births	Deaths
1990	219,018	1990	2,664	2,725
1991	218,591	1991	2,585	2,822
1992	217,577	1992	2,438	2,757
1993	216,696	1993	2,592	2,787
1994	215,753	1994	2,424	2,839
1995	214,698	1995	2,295	2,727
1996	212,660	1996	2,291	2,854
1997	210,288	1997	2,146	2,933
1998	208,390	1998	2,193	2,642
1999	206,520	1999	2,116	2,946
2000	213,295	2000	2,147	2,944
2001	212,917	2001	2,244	2,915
2002	210,803	2002	2,043	2,820
2003	209,888	2003	2,149	2,898
2004	209,411	2004	2,254	2,751
2005	209,192	2005	2,260	2,829
2006	209,146	2006	2,288	2,700
2007	209,330	2007	2,360	2,613
2008	209,408	2008	2,315	2,612

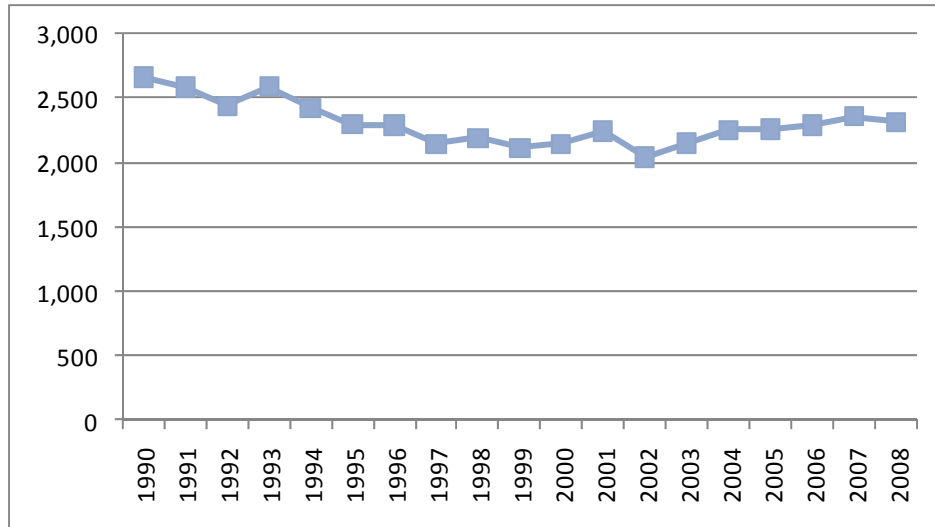
The county saw its largest increase in population between 1999 and 2000 when the population spiked from 206,520 to 213,295 – showing an increase of 6,775 people. During this fluctuation there was an increase in the births by 31 and a slight decrease in the deaths by two. From 2002 to 2007 Lackawanna County experienced a slight increase in the number of births and a slight decrease in the number of deaths, overall population decreased.

From 1990 to 2008, Lackawanna County experienced an overall population decline. In 1990, the county’s population totaled 219,018; in 2008, its population was 209,408.

## Lackawanna County Births

From 1990-2008, Lackawanna County reported 43,804 births. After a period of consistent decline between 1990 and 2002, Lackawanna's births are on the rise. In 2002, the county reported 2,043 births, while in 2008 it recorded 2,315 births. It is a slight decrease from the previous year, but it still shows an overall increase from 2002 of 272 births.

**Figure 1: Lackawanna County Birth Records**



Over the past eighteen years from 1990-2008, Lackawanna County's total number of births have declined. In 1990, there were a total of 2,664 births recorded by the county, while in 2008 there were a total of 2,315 births. Showing a decline of 349 births, even though its number of births declined and then rose, the county's total number of births in 2008 never reached the number of births in 1990.

## White (Caucasian) Male Births

From 1990 to 2008, Lackawanna County recorded the birth of 21,195 white males, as detailed in the following table. During the four years after 2002, when this demographic saw its lowest number of births, the number of white male births fluctuated but still ended above the low in 2002.

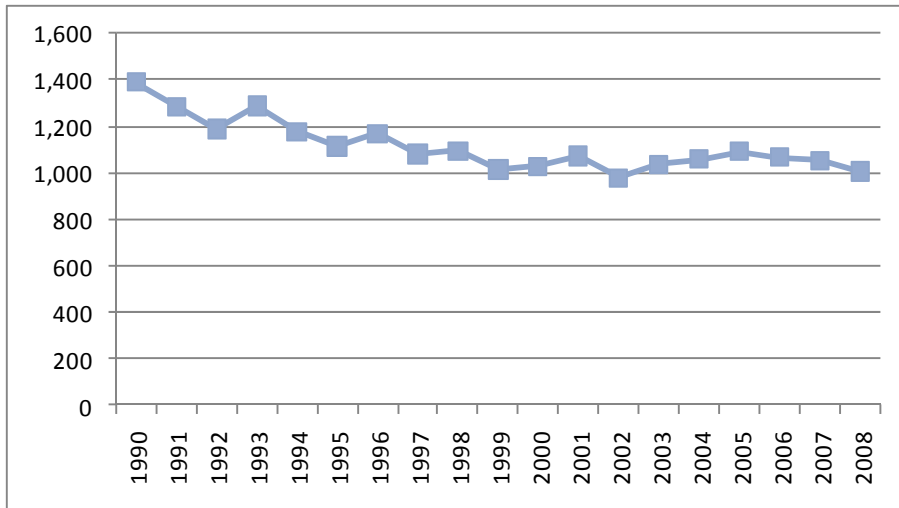
**Table 2: White (Caucasian) Male Births**

Year	Births	Year	Births
1990	1,390	2000	1,028
1991	1,286	2001	1,072
1992	1,188	2002	978
1993	1,288	2003	1,037
1994	1,178	2004	1,059
1995	1,115	2005	1,092
1996	1,170	2006	1,066
1997	1,081	2007	1,052
1998	1,095	2008	1,006
1999	1,014	2009	N/A

From 1990 to 2002, Lackawanna County experienced a drop in white male births. Shown above, 2002 marked the low point, dropping to 978 white male births for the year.

Birth trends for white males directly correspond with the total birth trends. From 1990 to 2002, the number of white male births declined, as did the total population. In 1990, there were 1,390 white males born, and in 2002, there were 978 white males born -- an overall decline of 412 births. From 2002 to 2008 Lackawanna County saw a rebound from its low in 2002.

**Figure 2: White (Caucasian) Male Births**





## White (Caucasian) Female Births

From 1990 to 2008, the total number of female births in Lackawanna County was 20,044. Overall white female births have been declining; there have been some instances of rebound periods. In 1993, the number of white female births increased to 1,249, after dropping from 1,226 to 1,198 between the years 1990 and 1992. It also had another rebound period between the years 1998 and 2001. In 1998, a total of 1,021 white female births were recorded; in 2001, 1,074 were recorded. It also saw a large jump between the years 2005 to 2007; white female births rose from 915 to 982, recording one of its larger increases over the period.

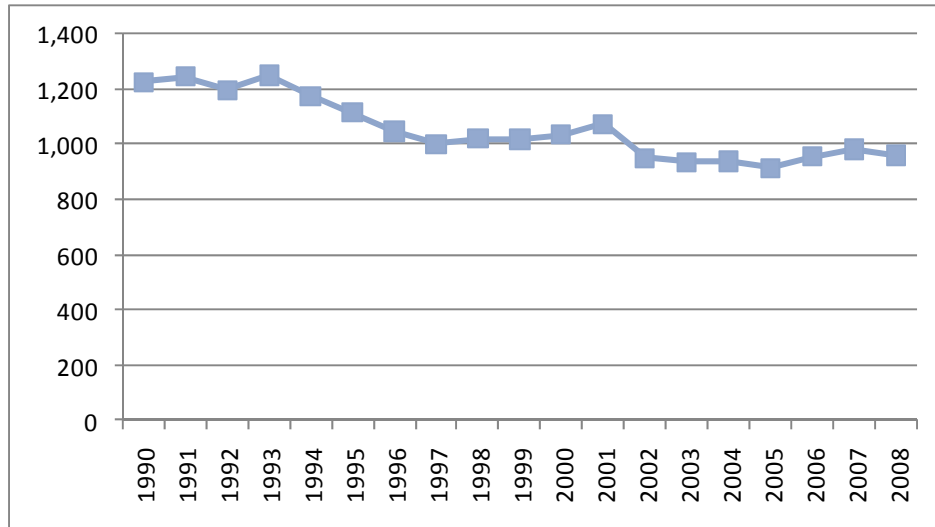
**Table 3: White (Caucasian) Female Births**

<b>Year</b>	<b>Births</b>	<b>Year</b>	<b>Births</b>
1990	1,226	2000	1,035
1991	1,245	2001	1,074
1992	1,198	2002	950
1993	1,249	2003	936
1994	1,176	2004	939
1995	1,115	2005	915
1996	1,048	2006	956
1997	1,001	2007	982
1998	1,021	2008	960
1999	1,018	2009	N/A

From 1990-2008, the number of white females born in Lackawanna County dropped by 266. In 2002, births dropped below 1,000; it has yet to recover and is still below the mark of 1,000. In 2005, the number of white female births hit an all time low of 915 births; it has slowly been increasing since then.

From 1990-2008, Lackawanna County's trend for white female births has been experiencing a decline. There were also periods of a small rebound after several years of decline.

**Figure 3: White (Caucasian) Female Births**



### Black (African-American) Male Births

From 1990 to 2008, Lackawanna County recorded a total of 503 black male births. Over this time period, there has been a noticeable increase in the number of black male births. In 1990, Lackawanna recorded fifteen black male births; in 2008, it recorded 44 births. Black male births peaked in 2007, reaching 51 total births. The most significant increase in black male births occurred between the years 1998 and 2008, as detailed in the chart below.

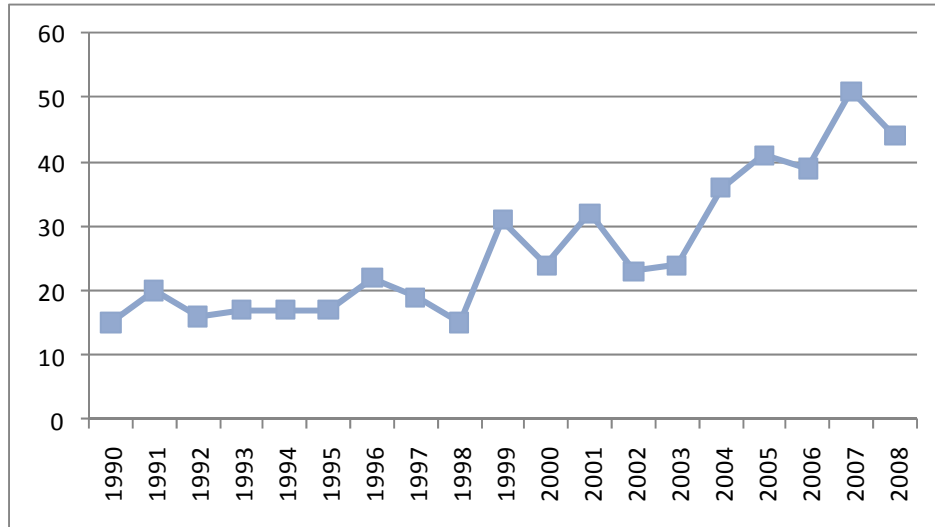
**Table 4: Black (African American) Male Births**

Year	Births	Year	Births
1990	15	2000	24
1991	20	2001	32
1992	16	2002	23
1993	17	2003	24
1994	17	2004	36
1995	17	2005	41
1996	22	2006	39
1997	19	2007	51
1998	15	2008	44
1999	31	2009	N/A

Overall, the number of black male births has increased; however there have been periods of regression. In 1998, the number of black male births hit an all time low of 15 births. The trend displayed in the

graph below shows a slow growing demographic from 1990-1998. In 2000-2008, the number of black male births had increased significantly.

**Figure 4: Black (African American) Male Births**



### **Black (African-American) Female Births**

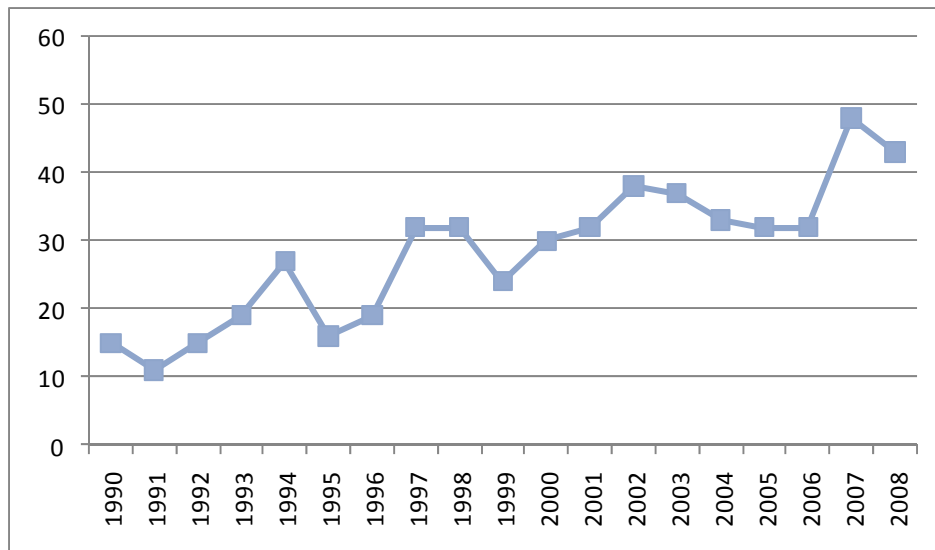
From 1990 to 2008, Lackawanna County reported 535 black female births, as shown in the following table. The number of births for this demographic grew at a quicker pace than for their counterparts, black males. Black female births peaked in 2007, reaching 48 births. There were four periods where the number of black female births increased. First, from 1991 to 1994, the number of black female births increased. Second, from 1996 through 1997, the number increased by thirteen. Third, from 1999 to 2002, black female births increased by fourteen. Lastly, from 2006 to 2007, there was an increase of sixteen black female births.

**Table 5: Black (African American) Female Births**

Year	Births	Year	Births
1990	15	2000	30
1991	11	2001	32
1992	15	2002	38
1993	19	2003	37
1994	27	2004	33
1995	16	2005	32
1996	19	2006	32
1997	32	2007	48
1998	32	2008	43
1999	24	2009	N/A

Alongside of these increases, there were noticeable decreases in the number of black female births. The number of black female births bottomed out in 1991, with eleven total births. From 1994-1995 black female births declined by nine and from 1998 to 1999 it decreased by six.

**Figure 5: Black (African American) Female Births**



Over the eighteen years examined Lackawanna’s number of black female births increased but not at a steady pace. As quick as the amount of black female births rose, it quickly fell as well. The trend is showing that black females are slowly outnumbering the number of black males.

## Other Male Births

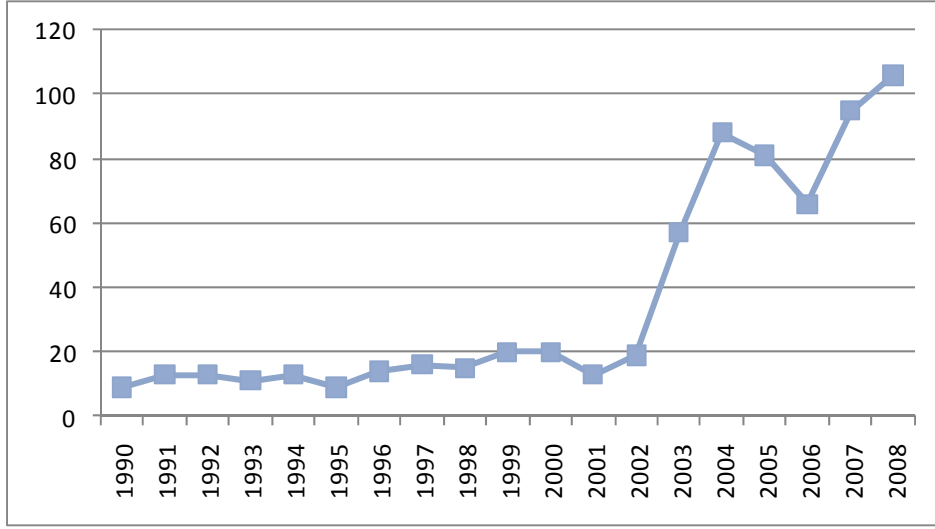
The “other” demographic includes all races that are not included in the white (Caucasian) or black (African American) categories. From 1990 to 2008, Lackawanna County recorded 678 other male births, as detailed in the table below.

**Table 6: Other Male Births**

<b>Year</b>	<b>Births</b>	<b>Year</b>	<b>Births</b>
1990	9	2000	20
1991	13	2001	13
1992	13	2002	19
1993	11	2003	57
1994	13	2004	88
1995	9	2005	81
1996	14	2006	66
1997	16	2007	95
1998	15	2008	106
1999	20	2009	N/A

In 2008, the number of male births is drastically higher than the number recorded in 1990 for the number of other male births. In 1990, the county reported nine other male births, while in 2008 they recorded their highest number in the past eighteen years of 106. From 2002 to 2008, Lackawanna had seen an astronomical increase in the number of other male births. The number of births for other males jumped from nineteen in 2002 to 106 in 2008. Lackawanna County’s other male births reached all time lows in 1990 and 1995, with only nine other male births. Other male birth rates point to the fact that in the 1990’s, few races, other than blacks or whites lived in Lackawanna County. Trends after 2000 show different results.

**Figure 6: Other Male Births**



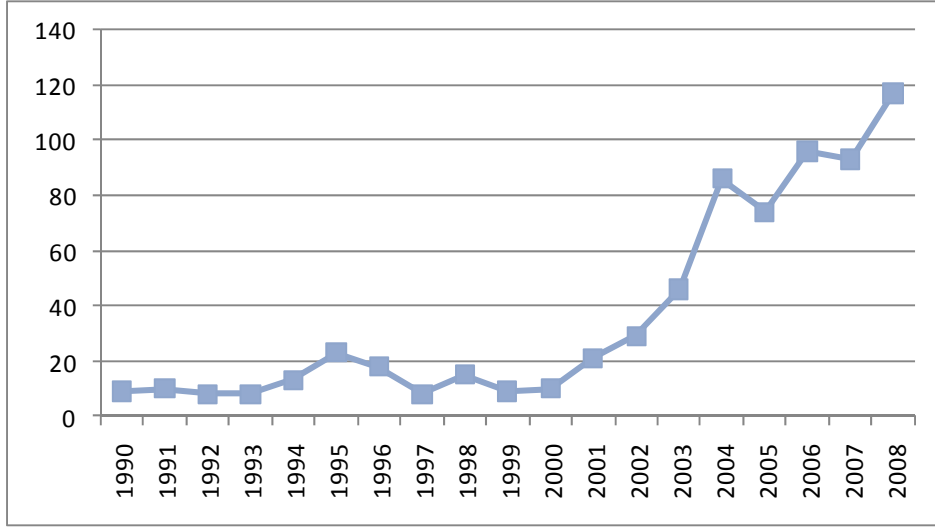
### Other Female Births

From 1990 to 2008, Lackawanna County reported 693 other female births, as shown in the table below. In 1990 and 1999, the county reported having nine births for other females. In 2008, Lackawanna County reported its highest number with 117 other female births.

**Table 7: Other Female Births**

Year	Births	Year	Births
1990	9	2000	10
1991	10	2001	21
1992	8	2002	29
1993	8	2003	46
1994	13	2004	86
1995	23	2005	74
1996	18	2006	96
1997	8	2007	93
1998	15	2008	117
1999	9	2009	N/A

**Figure 7: Other Female Births**

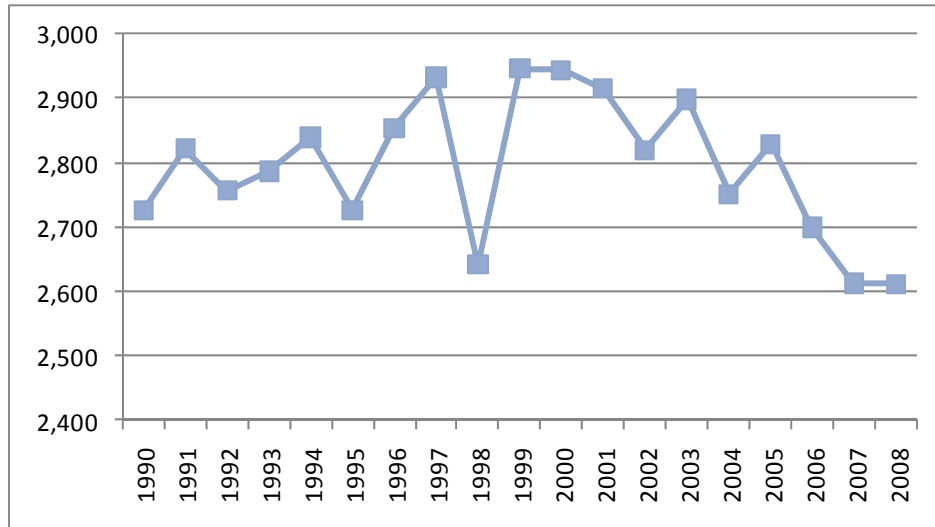


### **Lackawanna County Deaths**

From 1990 to 2008 Lackawanna County reported a total of 53,114 deaths. The county recorded a high of 2,946 deaths in 1999 and a low of 2,612 deaths in 2008.

After a period of increase for the years 1990 to 1997, Lackawanna County had been in a steady decline in the number of deaths from 1999 to 2008, ending on its lowest number of the period. Although the number of deaths has increased from 1990 to 2008, it has had its periods of increasing numbers and decreasing death rate numbers.

**Figure 8: Lackawanna County Death Records**



After nearly each period of increasing deaths, there were decreasing periods that preceded them. Some periods of increase and decrease lasted substantially longer than others. Overall, Lackawanna County trends show that the numbers of deaths in the county are declining, as residents are living longer and Lackawanna is experiencing an increased number of births. Slowly this will have an effect on the median age of the county and population growth.

### White (Caucasian) Male Deaths

From 1990 to 2008, Lackawanna County reported 24,497 white male deaths. The county reported a high of 1,365 white male deaths in 1996, and a low of 1,170 white male deaths in 2007.

**Table 8: White (Caucasian) Male Deaths**

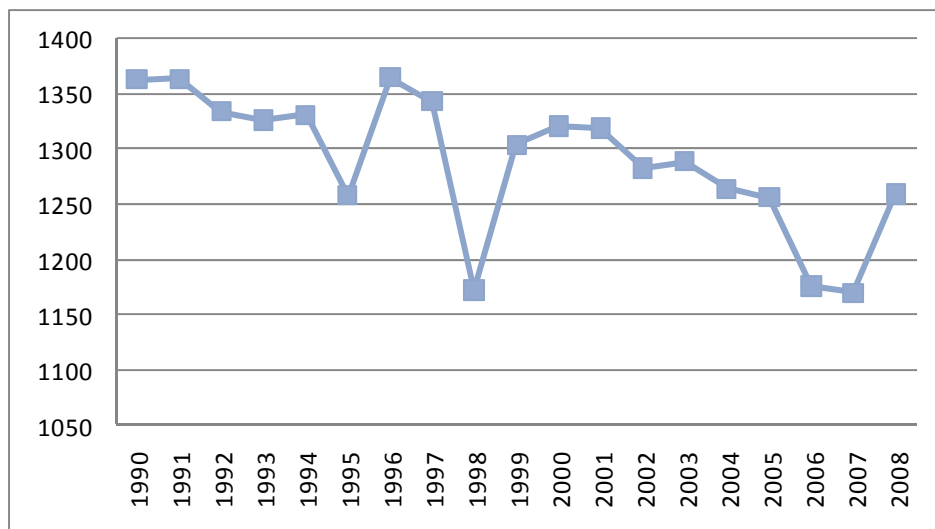
Year	Deaths	Year	Deaths
1990	1,363	2000	1,321
1991	1,364	2001	1,319
1992	1,334	2002	1,283
1993	1,326	2003	1,289
1994	1,331	2004	1,264
1995	1,258	2005	1,256
1996	1,365	2006	1,176
1997	1,343	2007	1,170
1998	1,172	2008	1,259
1999	1,304	2009	N/A



From 1990 to 2008, there has been a moderate decline in the number of white male deaths in Lackawanna County. Lackawanna recorded 1,363 white male deaths in 1990 and 1,170 white male deaths in 2008—bringing the total decrease to 104 deaths among this demographic.

There was a significant drop in white male deaths between the years 1997 and 1998, dropping from 1,343 deaths to 1,172 during this time period. Soon after this decline in deaths the number jumped back up to its previous higher numbers. The trend shown in the graph is a positive one for Lackawanna County and this demographic. After several years of fluctuating, the demographic has slowly seen a decrease in the number of deaths, which all started around 2000 and continued through 2007 before increasing again in 2008.

**Figure 9: White (Caucasian) Male Deaths**



### White (Caucasian) Female Deaths

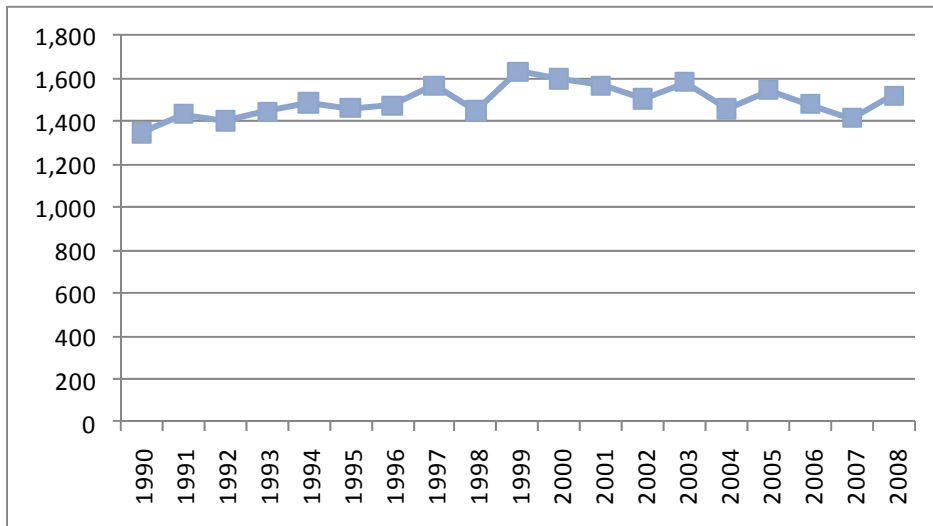
From 1990 to 2008, Lackawanna County has reported 28,367 white female deaths, as detailed in the following table. The highest number of deaths was recorded in 1999 with 1,632 white female deaths, and the low was recorded in 1990 with 1,345 white female deaths.

**Table 9: White (Caucasian) Female Deaths**

Year	Deaths	Year	Deaths
1990	1,345	2000	1,599
1991	1,432	2001	1,568
1992	1,402	2002	1,505
1993	1,447	2003	1,582
1994	1,485	2004	1,457
1995	1,461	2005	1,545
1996	1,474	2006	1,480
1997	1,568	2007	1,416
1998	1,449	2008	1,520
1999	1,632	2009	N/A

Lackawanna County’s number of white female deaths has seen an overall increase over the time period, but they have seen some periods of decline within the time span. The data shown might suggest that white females may not be living as long as their male counterparts. This also may be attributed to Lackawanna County having historically reported more female residents than male residents.

**Figure 10: White (Caucasian) Female Deaths**



## Black (African-American) Male Deaths

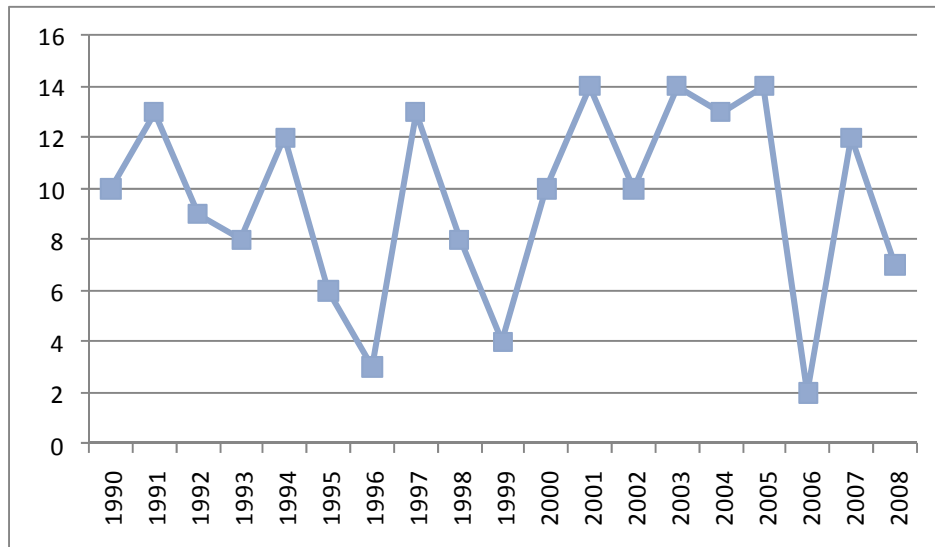
From 1990 to 2008, Lackawanna County has reported 182 black male deaths, as detailed in the table below. The highest number of deaths occurred in the years 2001, 2003 and 2005 with 14 total black male deaths, the low occurred in 2006 with only 2 black male deaths.

**Table 10: Black (African American) Male Deaths**

Year	Deaths	Year	Deaths
1990	10	2000	10
1991	13	2001	14
1992	9	2002	10
1993	8	2003	14
1994	12	2004	13
1995	6	2005	14
1996	3	2006	2
1997	13	2007	12
1998	8	2008	7
1999	4	2009	N/A

Graphically, it is depicted below. The increases and decreases appear to be severe, but it is a product of a small sample of the population.

**Figure 11: Black (African American) Male Deaths**



## Black (African-American) Female Deaths

From the years 1990 to 2008, Lackawanna County experienced 131 black female deaths. The highest number of black female deaths was reached in 2002 with 12 deaths; the low was reached in 1995 with only one death.

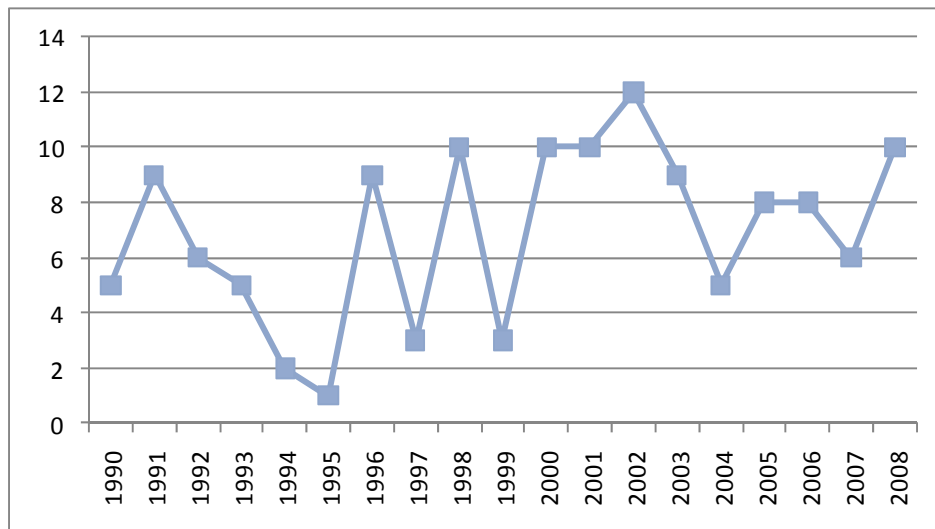
**Table 11: Black (African American) Female Deaths**

Year	Deaths	Year	Deaths
1990	5	2000	10
1991	9	2001	10
1992	6	2002	12
1993	5	2003	9
1994	2	2004	5
1995	1	2005	8
1996	9	2006	8
1997	3	2007	6
1998	10	2008	10
1999	3	2009	N/A

The largest drop in black female deaths occurred from the years 1991 to 1995, decreasing from nine total black female deaths to just only one death.

From the years 1995 to 2000, Lackawanna County experienced tradeoffs between highs and lows, after a period of increasing deaths, Lackawanna experienced a decrease in deaths.

**Figure 12: Black (African American) Female Deaths**



## Other Male Deaths

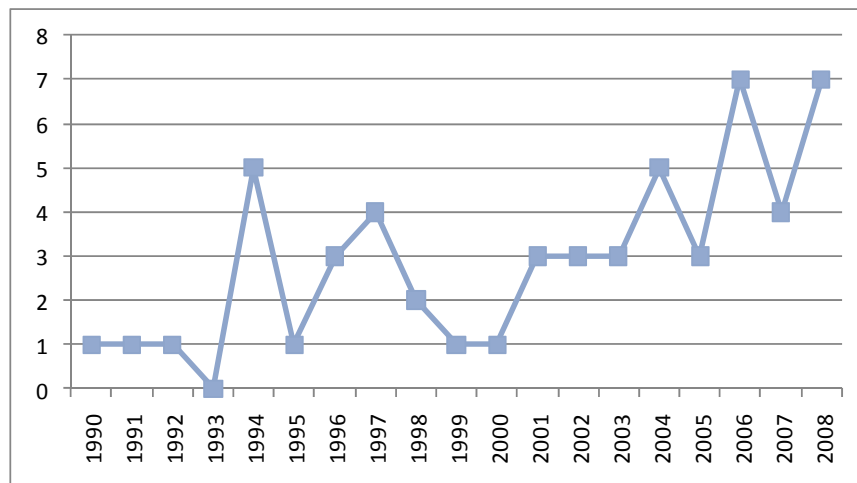
From the years 1990 to 2008, Lackawanna County experienced 55 other male deaths. The highest number of other male deaths was seven which was reached in 2006 and 2008; the lowest total number of deaths was reached in 1993 with zero other male deaths.

**Table 12: Other Male Deaths**

Year	Deaths	Year	Deaths
1990	1	2000	1
1991	1	2001	3
1992	1	2002	3
1993	0	2003	3
1994	5	2004	5
1995	1	2005	3
1996	3	2006	7
1997	4	2007	4
1998	2	2008	7
1999	1	2009	N/A

Overall, Lackawanna County's number of other male deaths is quite low, reaching a low of zero in 1993. However, deaths spiked from 1993 to 1994, jumping from zero deaths to five total other male deaths. The chart shows that Lackawanna County is experiencing an increase in the total number of other male deaths. Even though Lackawanna experienced a decrease in its last year, overall, they have increased by three over the time period.

**Figure 13: Other Male Deaths**



## Other Female Deaths

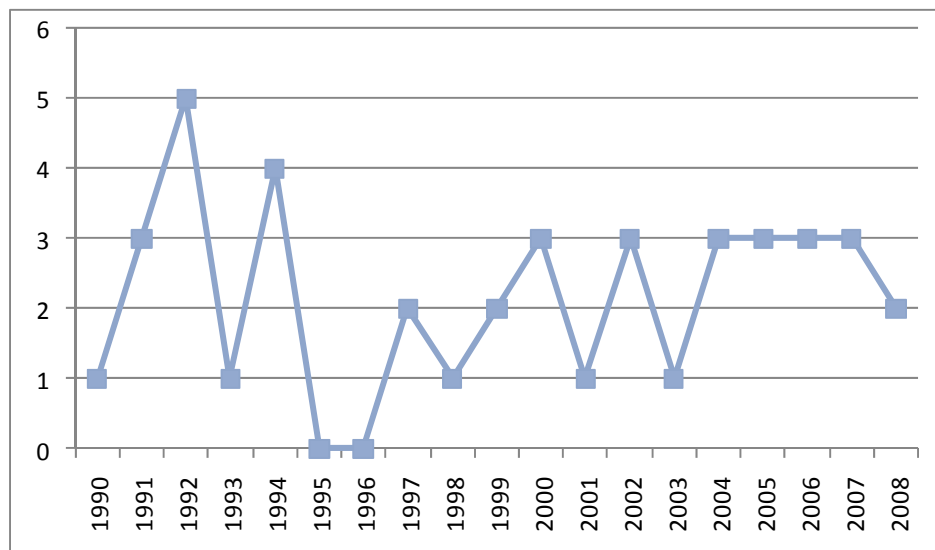
From 1990 to 2008, Lackawanna has reported 41 total other female deaths. The highest number of deaths occurred in 1992, the lowest number of other female deaths occurred in the years 1995 and 1996.

**Table 13: Other Female Deaths**

Year	Deaths	Year	Deaths
1990	1	2000	3
1991	3	2001	1
1992	5	2002	3
1993	1	2003	1
1994	4	2004	3
1995	0	2005	3
1996	0	2006	3
1997	2	2007	3
1998	1	2008	2
1999	2	2009	N/A

From 2004-2007, the number of deaths have shown to be leveling off followed by a decrease, which is a positive indicator for the county.

**Figure 14: Other Female Deaths**



## Luzerne County Population

Luzerne County's population trends tend to mirror that of Lackawanna County's population trends. From 1990 to 2008, Luzerne County reported 19,953 more deaths than births. From 1993 to 1999, Luzerne County's population has shown a decline, as births were among the lowest the county recorded, and deaths were among the highest recorded. In 1990, the population of Luzerne County was 328,479 and it dropped to 311,983 in 2008.

**Table 14: Luzerne County Population & Births/Deaths**

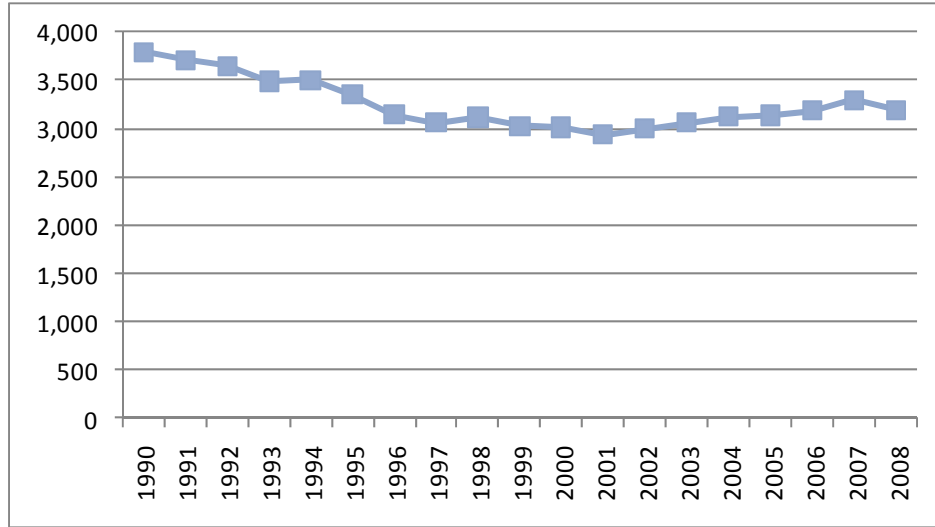
<b>Year</b>	<b>Population</b>	<b>Year</b>	<b>Birth</b>	<b>Death</b>
1990	328,479	1990	3,793	4,211
1991	329,053	1991	3,708	4,207
1992	329,148	1992	3,650	4,135
1993	328,611	1993	3,488	4,245
1994	326,274	1994	3,503	4,406
1995	323,935	1995	3,351	4,446
1996	321,009	1996	3,143	4,435
1997	317,462	1997	3,057	4,399
1998	314,609	1998	3,119	4,373
1999	312,000	1999	3,028	4,424
2000	319,250	2000	3,010	4,482
2001	315,564	2001	2,936	4,461
2002	313,838	2002	2,995	4,322
2003	312,805	2003	3,061	4,522
2004	311,791	2004	3,125	4,193
2005	311,624	2005	3,136	4,205
2006	311,626	2006	3,188	4,058
2007	312,265	2007	3,298	4,102
2008	311,983	2008	3,191	4,107

## Luzerne County Births

From 1990 to 2008, Luzerne County's number of births totaled 61,780. The number of births in the county peaked at 3,793 in 1990, and the lowest number of births was recorded in 2001 with 2,936.

After reaching its low in 2001, Luzerne County has been slowly increasing the total number of births in the county. In 2001, the county recorded 2,936 births, by 2008 it recorded 3,191. Overall, Luzerne County's number of births has declined. In 1990, the county recorded 3,793 births, compared with 3,191 births in 2008—a total decrease of 602 births.

**Figure 15: Luzerne County Birth Records**



### White (Caucasian) Male Births

From 1990 to 2008, Luzerne County has experienced 29,717 total white male births, as detailed in the following chart. White male births peaked in 1990 but decreased by 30% in 2008.

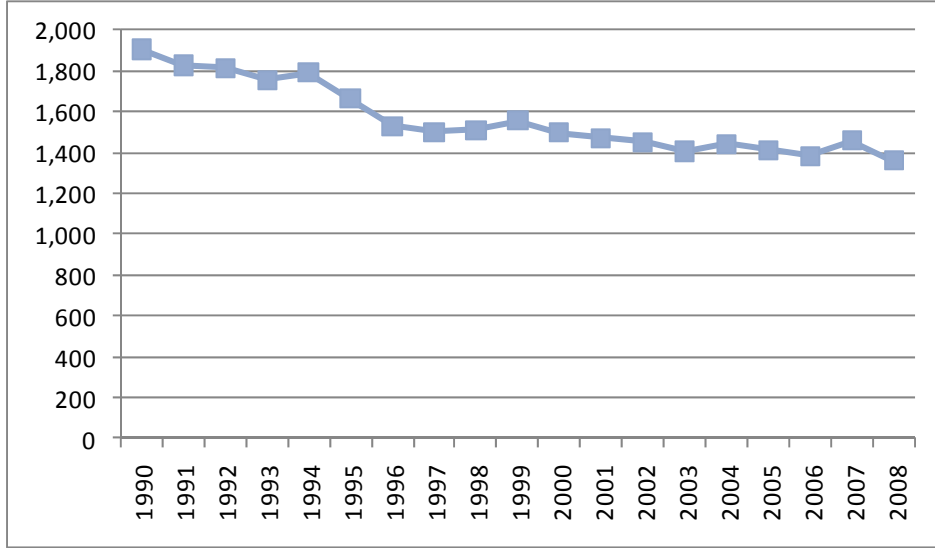
**Table 15: White (Caucasian) Male Births**

Year	Births	Year	Births
1990	1,904	2000	1,497
1991	1,827	2001	1,470
1992	1,812	2002	1,451
1993	1,755	2003	1,404
1994	1,790	2004	1,442
1995	1,662	2005	1,412
1996	1,529	2006	1,381
1997	1,499	2007	1,459
1998	1,510	2008	1,359
1999	1,554	2009	N/A

The number of white male births for Luzerne County only increased in three separate occasions – 1994, 1999 and 2004. Births are higher in 2000 than in 2004. Overall, it has shown a steady decrease since 1990. White male births mirror the total number of births in Luzerne County, both show a steady decline over the time period examined.



**Figure 16: White (Caucasian) Male Births**



**White (Caucasian) Female Births**

From 1990 to 2008, Luzerne County has reported 28,467 total numbers of white female births, as shown in the chart below. White female births peaked in 1991 at 1,823 and hit a low in 2008 at 1,280.

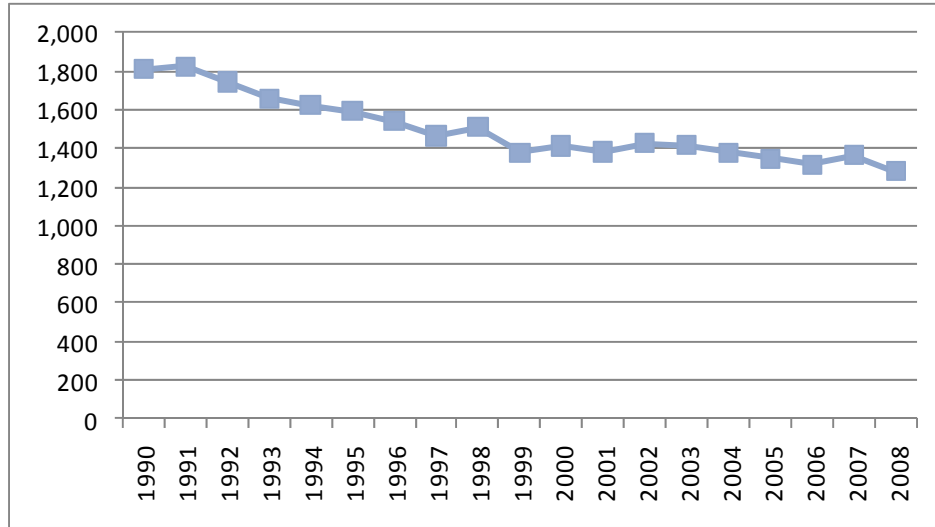
**Table 16: White (Caucasian) Female Births**

Year	Births	Year	Births
1990	1,811	2000	1,412
1991	1,823	2001	1,383
1992	1,743	2002	1,427
1993	1,659	2003	1,416
1994	1,622	2004	1,380
1995	1,592	2005	1,347
1996	1,542	2006	1,315
1997	1,465	2007	1,364
1998	1,508	2008	1,280
1999	1,378	2009	N/A

White female birth rates in Luzerne County bottomed out the same year that white male births hit its low, 2008. From 1990 to 2008, Luzerne County experienced a steady decline in the number of white female births, dropping to 531.

The chart is almost completely identical to the white male birth chart.

**Figure 17: White (Caucasian) Female Births**



### Black (African-American) Male Births

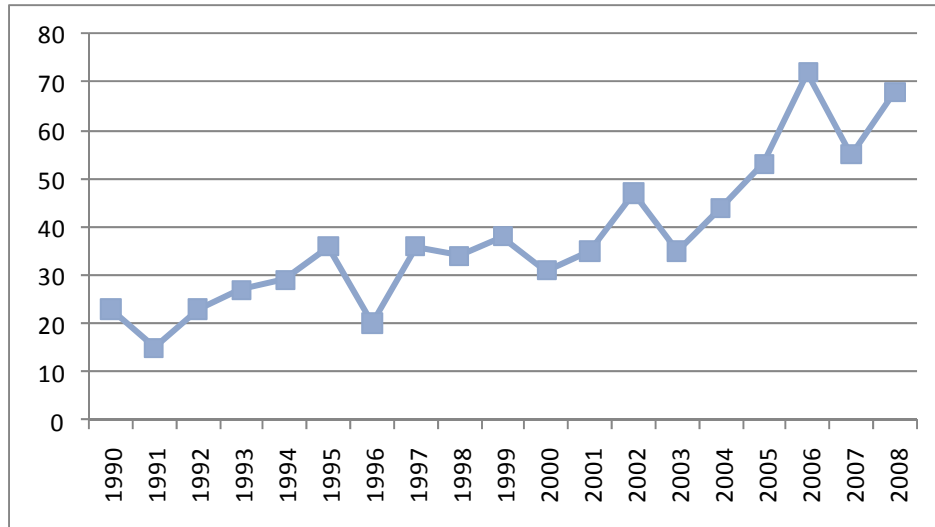
From 1990 to 2008, Luzerne County reported having 721 black male births, as detailed in the chart below. Black male births peaked in 2006 with 72 births, after increasing from its lowest of 15 births in 1991.

**Table 17: Black (African American) Male Births**

Year	Births	Year	Births
1990	23	2000	31
1991	15	2001	35
1992	23	2002	47
1993	27	2003	35
1994	29	2004	44
1995	36	2005	53
1996	20	2006	72
1997	36	2007	55
1998	34	2008	68
1999	38	2009	N/A

Overall, Luzerne County has experienced an increase in the number of black male births for the time period examined. From 1994 to 2003, the number of births for black males fluctuated back and forth. Then after 2003, Luzerne County saw a drastic increase in black male births.

**Figure 18: Black (African American) Male Births**



### Black (African-American) Female Births

From 1990 to 2008, Luzerne County reported 669 total black female births, as detailed in the chart below. Births in this demographic peaked in 2008 at 80 total black female births, and it hit its low in 1993 with a total of 20 births.

**Table 18: Black (African American) Female Births**

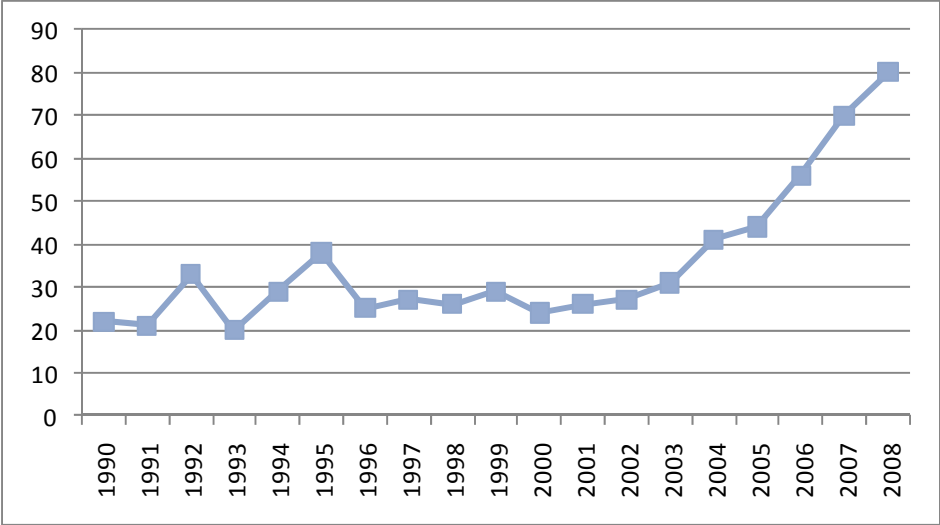
Year	Births	Year	Births
1990	22	2000	24
1991	21	2001	26
1992	33	2002	27
1993	20	2003	31
1994	29	2004	41
1995	38	2005	44
1996	25	2006	56
1997	27	2007	70
1998	26	2008	80
1999	29	2009	N/A

Luzerne County has seen a fluctuation in the number of black female births, but from 2000 to 2008, it has seen a dramatic increase in the number of births. The number of births increased from 24 to 80 over that time span.

From 1990 to 1996, Luzerne County has seen many different fluctuations of increases and decreases of the number of black female births. From 2000 to 2008, Luzerne County has seen a rapid increase in the number of black female births, the number of births increased by 56 in that time period.

Overall, the number of black female births is on the rise and the overall trend is a positive one for Luzerne County. Compared with the black male birth rate, Luzerne County is seeing an increasing number of black female births.

**Figure 19: Black (African American) Female Births**



### Other Male Births

From 1990 to 2008 Luzerne County reported 887 other male births as detailed in the following table. This demographic hit its peak in 2008 when it reached 159 births; it hit its low in 1990 when it only had seven births.

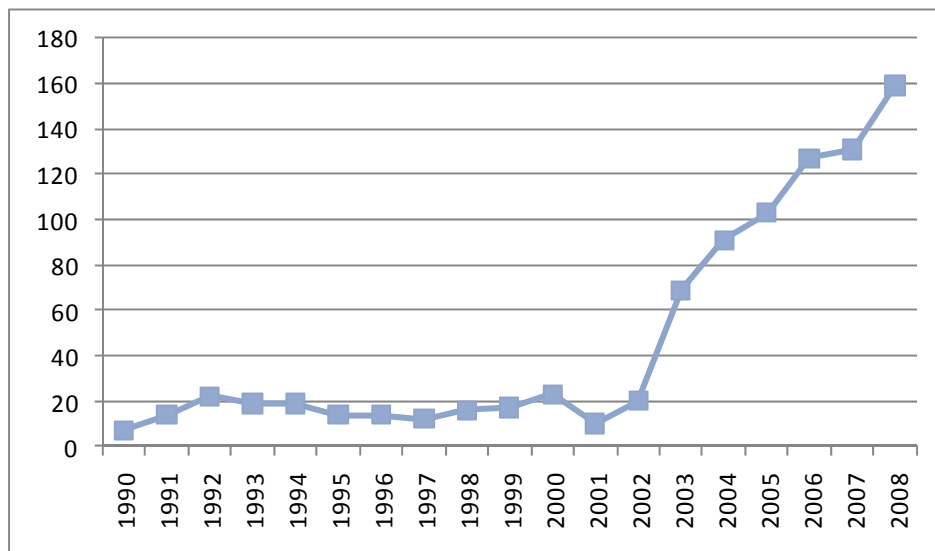
**Table 19: Other Male Births**

Year	Births	Year	Births
1990	7	2000	23
1991	14	2001	10
1992	22	2002	20
1993	19	2003	69
1994	19	2004	91
1995	14	2005	103
1996	14	2006	127
1997	12	2007	131
1998	16	2008	159
1999	17	2009	N/A

From 2001 to 2008, Luzerne County experienced a dramatic increase in the number of other male births, jumping from just 10 births in 2001 to 159 births in 2008. This trend is experiencing such an exponential growth because of the increasing number of other races moving to the area, besides Caucasian and African-American.

From 1990 to 2002 Luzerne County's other male births have been at a constant low, showing little to no dramatic changes. Over those years, births went as low as seven and never rose above 22 births. The years following 2002 show a consistent increase in the number of births for other males.

**Figure 20: Other Male Births**



## Other Female Births

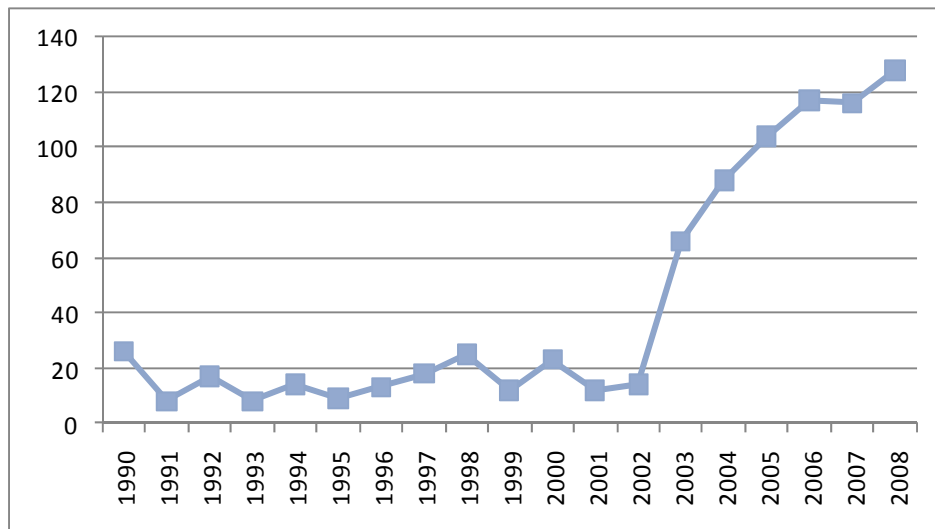
From 1990 to 2008, Luzerne County reported having 818 other female births, as shown in the chart below. They experienced their low in 1991 and 1993 when they reported having only eight other female births, they reached their high in 2008 after consistent annual increases since 2001.

**Table 20: Other Female Births**

Year	Births	Year	Births
1990	26	2000	23
1991	8	2001	12
1992	17	2002	14
1993	8	2003	66
1994	14	2004	88
1995	9	2005	104
1996	13	2006	117
1997	18	2007	116
1998	25	2008	128
1999	12	2009	N/A

As compared to its counterpart, other female births remained somewhat constant from the years 1990 to 2002 when they never rose above 26 births. After numerous years of staying at a consistent level, Luzerne County has experienced a drastic increase since 2003. It showed its highest number recorded in 2008 with 128 other female births.

**Figure 21: Other Female Births**

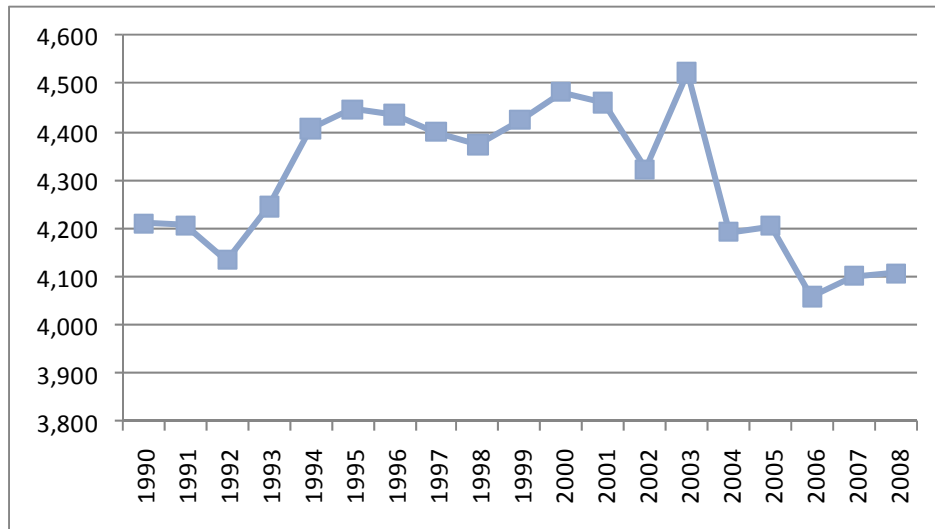


## Luzerne County Deaths

From 1990 to 2008, Luzerne County recorded 81,733 deaths. The County's deaths peaked in 2003 with 4,552 deaths and hit a low in 2006 with 4,058.

After steady numbers from 1994 to 2003, the county recorded a significant decline in the number of deaths. In 2003, the county's deaths peaked at 4,552; in 2007, it dropped to 4,102—a decrease of 420. However, the County saw a slight increase of five deaths in 2008.

**Figure 22: Luzerne County Death Records**



The first three years show a decline in the number of deaths, the chart then shows an eleven year increase in the number of deaths. Overall, Luzerne County's deaths for the period examined is one of high and lows, experiencing highs from the years 1994 to 2003 and lows from 2004 to 2008.

## White (Caucasian) Male Deaths

From 1990 to 2008, Luzerne County reported 37,878 white male deaths. It experienced its high in 2003 with 2,105 white male deaths; in 2006 it reported its low of 1,852 white male deaths.

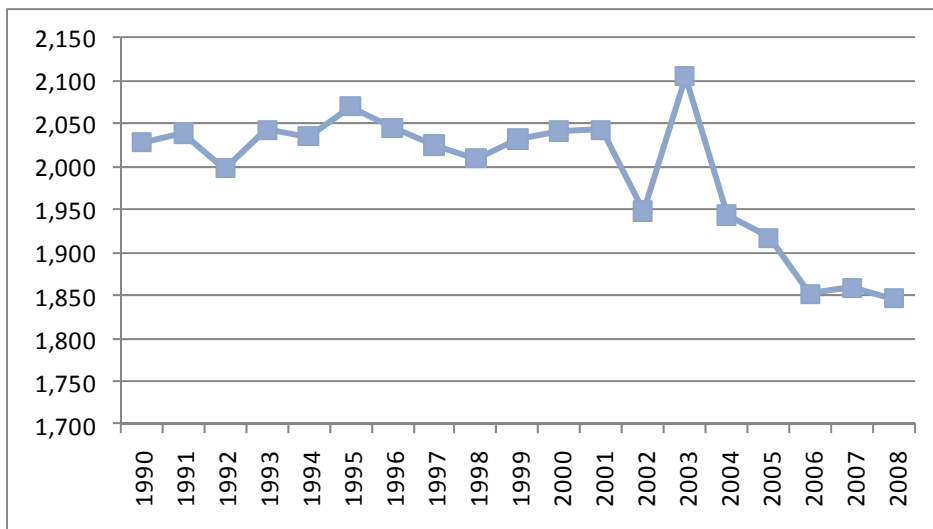
**Table 21: White (Caucasian) Male Deaths**

Year	Deaths	Year	Deaths
1990	2,028	2000	2,041
1991	2,039	2001	2,043
1992	1,998	2002	1,948
1993	2,043	2003	2,105
1994	2,035	2004	1,943
1995	2,070	2005	1,917
1996	2,045	2006	1,852
1997	2,025	2007	1,859
1998	2,009	2008	1,846
1999	2,032	2009	N/A

Overall, Luzerne County’s deaths have slowly declined over the years examined. In 1990, the total number of deaths was 2,028 and in 2008 it recorded 1,846 white male deaths. The highest number of white male deaths was reported in 2003, and the lowest number of white male deaths was in 2008.

Until 2003, Luzerne County showed a consistent trend. After 2003, the county showed a fairly steady decrease in the number of deaths, reaching its all time low in 2006.

**Figure 23: White (Caucasian) Male Deaths**





## White (Caucasian) Female Deaths

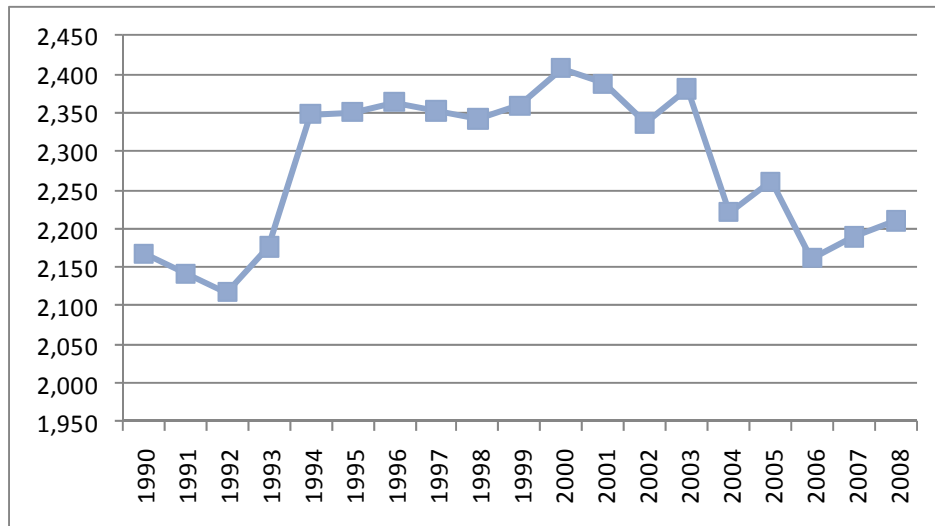
From 1990 to 2008, Luzerne County reported 43,277 white female deaths, as detailed in the chart below. In 2000, Luzerne experienced its greatest number of deaths with 2,408 and it experienced its low in 1992 with 2,118 white female deaths.

**Table 22: White (Caucasian) Female Deaths**

Year	Deaths	Year	Deaths
1990	2,168	2000	2,408
1991	2,142	2001	2,388
1992	2,118	2002	2,337
1993	2,176	2003	2,381
1994	2,348	2004	2,221
1995	2,351	2005	2,261
1996	2,364	2006	2,162
1997	2,352	2007	2,189
1998	2,342	2008	2,210
1999	2,359	2009	N/A

Like white males, white female deaths experienced a decline after the year 2003. Overall, Luzerne experienced a slight decline in the total number of white female deaths.

**Figure 24: White (Caucasian) Female Deaths**



### Black (African-American) Male Deaths

From 1990 to 2008, Luzerne County reported 294 black male deaths. Luzerne experienced a high of 24 black male deaths in both 2007 and 2008 and experienced a low of nine in 1995.

**Table 23: Black (African American) Male Deaths**

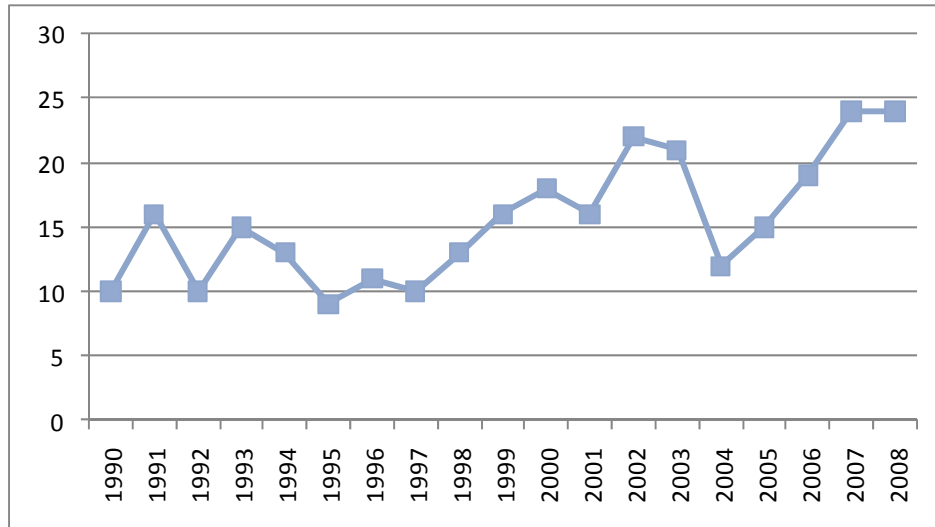
<b>Year</b>	<b>Deaths</b>	<b>Year</b>	<b>Deaths</b>
1990	10	2000	18
1991	16	2001	16
1992	10	2002	22
1993	15	2003	21
1994	13	2004	12
1995	9	2005	15
1996	11	2006	19
1997	10	2007	24
1998	13	2008	24
1999	16	2009	N/A

Overall, Luzerne County experienced an increase in the number of black male deaths during the time period from 1990 to 2008.

From 1990 to 2008, the county recorded an increase of fourteen black male deaths. A steady increase started in 1997 and persisted until 2007, the highest was 24 in 2007 and 2008. There was a decrease in 2004 when only 12 deaths were recorded.

Over the timeframe examined, Luzerne County’s black male deaths showed an overall increase, with some periods of fluctuation.

**Figure 25: Black (African American) Male Deaths**



### Black (African-American) Female Deaths

From 1990 to 2008, Luzerne County reported having 173 black female deaths. Luzerne experienced its high in 2008 with 20 black female deaths and it reported its low in 1990 and 2003 with only three total black female deaths.

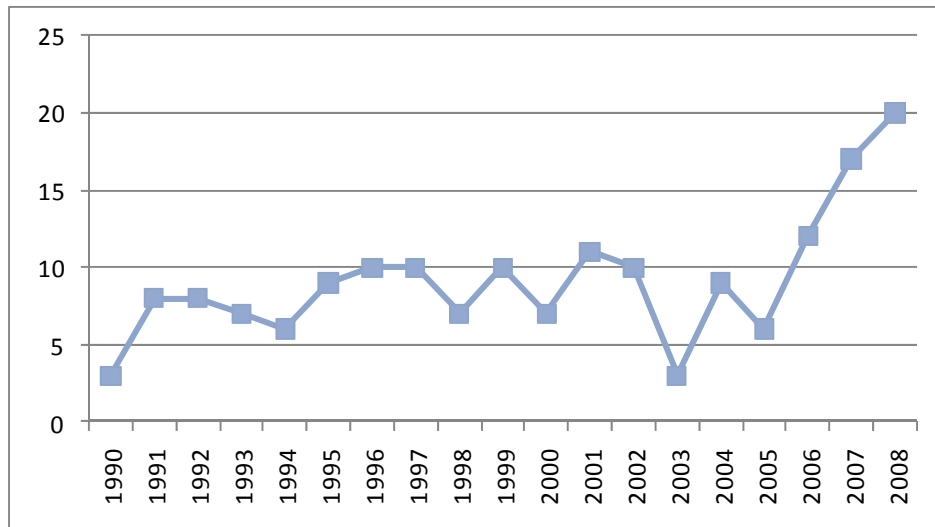
**Table 24: Black (African American) Female Deaths**

Year	Deaths	Year	Deaths
1990	3	2000	7
1991	8	2001	11
1992	8	2002	10
1993	7	2003	3
1994	6	2004	9
1995	9	2005	6
1996	10	2006	12
1997	10	2007	17
1998	7	2008	20
1999	10	2009	N/A

Overall, Luzerne County’s number of black female deaths has risen over the time period of 1990 to 2008; it has seen fluctuation downward over the time period examined. The greatest drop occurred between the years 2002 and 2003.

Luzerne County’s black female deaths have risen over the time period examined. In 1990, there were only three black female deaths; in 2008, that number had risen to 20 deaths, showing an increase of seventeen black female deaths. The number of deaths steadily rose until 2003, at which point it dropped to just three total black female deaths before increasing again.

**Figure 26: Black (African American) Female Deaths**



### Other Male Deaths

From 1990 to 2008, Luzerne County reported having 38 other male deaths, as detailed in the table below. Luzerne experienced it’s high in 2000 with six total other male deaths, it reported its low in 1992, 1998 and 2002 with zero total deaths.

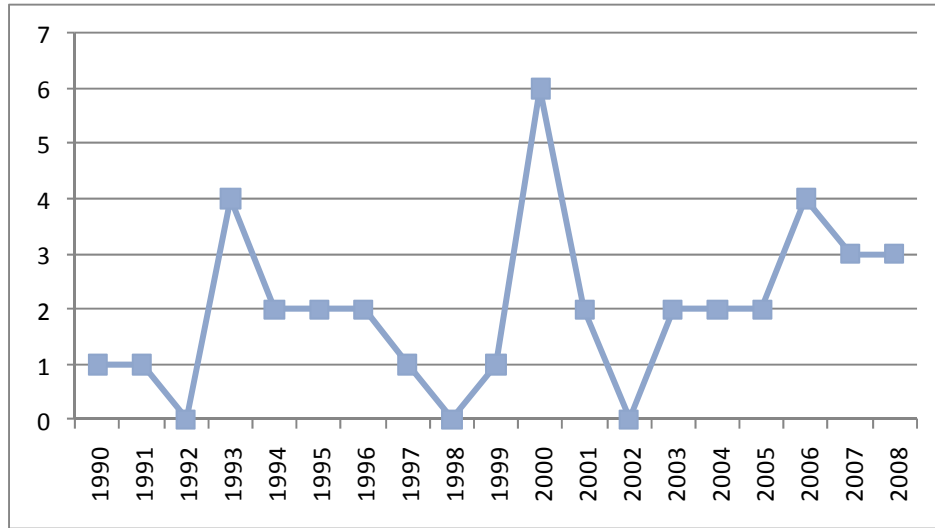
**Table 25: Other Male Deaths**

Year	Deaths	Year	Deaths
1990	1	2000	6
1991	1	2001	2
1992	0	2002	0
1993	4	2003	2
1994	2	2004	2
1995	2	2005	2
1996	2	2006	4
1997	1	2007	3
1998	0	2008	3
1999	1	2009	N/A

In addition to the years that the other male deaths dropped to zero, from 1990 to 1991, from 1994 to 1997, and 2003 to 2005 there were no changes in the number of deaths.

Overall, from 1990 to 2008, other male deaths rose by two. As previously stated, there were periods of no deaths and also periods of no fluctuation in the number of other male deaths.

**Figure 27: Other Male Deaths**



### Other Female Deaths

From 1990 to 2008, Luzerne County reported having 46 other female deaths. Luzerne reported having its highest total of deaths in 1999 with six deaths, and it reported its low in 1993 with zero total other female deaths.

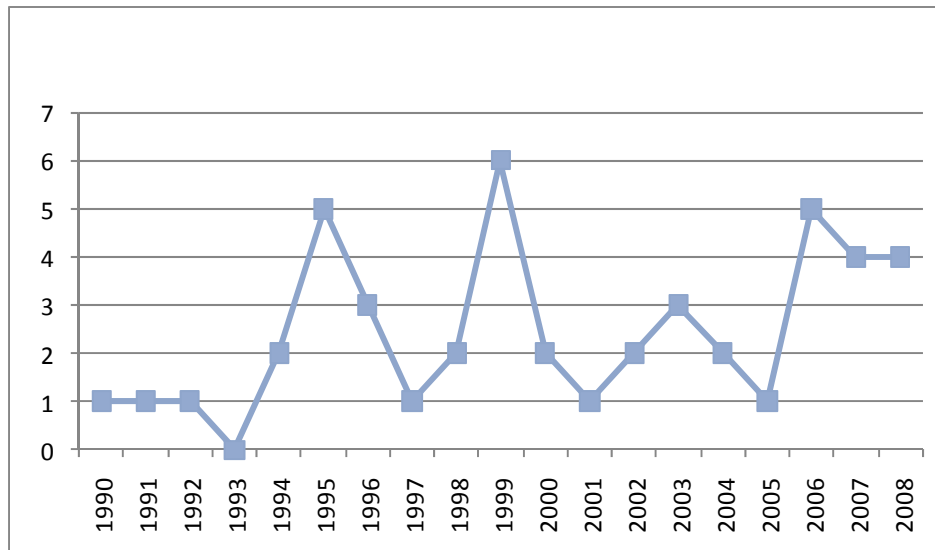
**Table 26: Other Female Deaths**

Year	Deaths	Year	Deaths
1990	1	2000	2
1991	1	2001	1
1992	1	2002	2
1993	0	2003	3
1994	2	2004	2
1995	5	2005	1
1996	3	2006	5
1997	1	2007	4
1998	2	2008	4
1999	6	2009	N/A

Luzerne County's other female deaths was plagued by significant increase which were followed directly by significant decreases. Examples of this trend occurred between 1995 and 1997, and also between 1999 and 2001.

Overall, Luzerne County's other female deaths increased over the years 1990 and 2008. In 1990, the county reported one death and in 2008 it recorded four total other female deaths, showing an increase of three deaths. Every significant increase was followed by a period of significant decrease.

**Figure 28: Other Female Deaths**



## Conclusion

The populations of Lackawanna and Luzerne Counties have been declining for several years. One of the most important factors causing that decline is the fact that the number of deaths is higher than the number of births. A separate study on migration patterns shows that there are more people moving into the area than people moving out of the counties. The migration patterns are beginning to demonstrate a positive population growth for the two counties. The Institute will prepare a paper comparing the findings of both studies to ascertain whether population is growing or declining overall. Below is a summary of birth and death by gender and race for each county.

### Summary of Lackawanna County

- More deaths than births from 1990-2008
- More deaths in each and every year from 1990-2008
- Overall deaths have been decreasing since 2005
- Overall births have been increasing since 2002

### Summary of Luzerne County

- More deaths than births from 1990-2008
- More deaths in each and every year from 1990-2008
- Overall births have been increasing since 2001
- Caucasian male births declining since 2004
- Caucasian female births declining since 2002
- African American male births increasing since 2003
- African American female births increasing since 2000
- Caucasian male deaths declining since 2002
- No pattern in Caucasian female deaths
- No pattern in African American male and female deaths
- No pattern in Other male and female deaths