

Birth Defects Surveillance Data from Selected States, 1998–2002

On the following pages, birth defects surveillance data are presented for 35 states. In this issue, state surveillance programs were requested to provide birth defects data for the time period January 1, 1998 through December 31, 2002. Differences in surveillance methodology among states preclude the ability to provide rates for all programs combined (see State Birth Defects Surveillance Program Directory).

State programs were asked to provide surveillance data on 45 specific birth defects as detailed in Appendix A on pages 854–855. Programs were asked to identify the occurrence of each specific defect for all live births, stillbirths and terminations (if collected), and to stratify the data by racial/ethnic group and, for certain defects (trisomy 13, 18 and 21), by maternal age. To calculate rates, programs were also asked to provide the number of live births for each calendar year submitted. The rate for the unknown/other category is not calculated.

An attempt was made to standardize both the request and presentation of state surveillance data; however, differences in the way programs collect and report birth defects data are listed in the footnotes in the accompanying tables and may be referenced in the program directories on pages 700–757. Along with the inability of some programs to provide data for each of the years included in the report, other programs varied in their ability to report counts and rates by race/ethnicity or were unable to provide data for each specific defect requested due to differences in the coding systems (i.e., ICD-9-CM vs. CDC/BPA) used to classify birth defects.

Although previous reports have shown trends or annual rates of certain conditions, such as neural tube defects and fetal alcohol syndrome, this report does not highlight a specific condition. For a more detailed presentation of other birth defects, the reader is encouraged to visit the NBDPN web site at www.nbdpn.org.

The National Birth Defects Prevention Network would like to acknowledge the state surveillance programs that submitted data for this report, as well as Cara Mai, John Cashwell, Lindsay Abraham, and Katherine Wooten at the Centers for Disease Control and Prevention for their efforts in compiling and formatting the data tables and graphs presented.

LITERATURE CITED

- National Birth Defects Prevention Network (NBDPN). 1997. Congenital malformations surveillance report. *Teratology* 56(1/2):115-175.
- National Birth Defects Prevention Network (NBDPN). 2000. Congenital malformations surveillance report. *Teratology* 61(1):86-158
- National Birth Defects Prevention Network (NBDPN). 2001. Congenital malformations surveillance report. *Teratology* 64(supplement1):S117-S175.
- National Birth Defects Prevention Network (NBDPN). 2002. Congenital malformations surveillance report. *Teratology* 66(supplement1):S129-S219.
- National Birth Defects Prevention Network (NBDPN). 2003. Congenital malformations surveillance report. *Birth Defects Research (Part A)* 67:729-818.
- National Birth Defects Prevention Network (NBDPN). 2004. Congenital malformations surveillance report. *Birth Defects Research (Part A)* 70:677-771.

[†]This article is a US government work and, as such, is in the public domain in the United States of America.

Published online in Wiley InterScience (www.interscience.wiley.com).
DOI: 10.1002/bdra.20214

Alabama

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	7 <i>1.92</i>	2 <i>0.87</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>1.63</i>	
Anencephalus	10 <i>2.74</i>	6 <i>2.60</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	17 <i>2.76</i>	
Aniridia	3 <i>0.82</i>	1 <i>0.43</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.65</i>	
Anophthalmia / microphthalmia	11 <i>3.02</i>	9 <i>3.91</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	20 <i>3.25</i>	
Anotia / microtia	2 <i>0.55</i>	3 <i>1.30</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	6 <i>0.98</i>	
Aortic valve stenosis	10 <i>2.74</i>	2 <i>0.87</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	13 <i>2.11</i>	
Atrial septal defect	54 <i>14.81</i>	38 <i>16.49</i>	2 <i>17.02</i>	2 <i>39.68</i>	0 <i>0.00</i>	0	96 <i>15.60</i>	+
Biliary atresia	2 <i>0.55</i>	2 <i>0.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.65</i>	
Bladder exstrophy	2 <i>0.55</i>	1 <i>0.43</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.49</i>	
Choanal atresia	2 <i>0.55</i>	1 <i>0.43</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.49</i>	
Cleft lip with and without cleft palate	46 <i>12.62</i>	18 <i>7.81</i>	0 <i>0.00</i>	2 <i>39.68</i>	0 <i>0.00</i>	0	66 <i>10.73</i>	
Cleft palate without cleft lip	41 <i>11.25</i>	14 <i>6.08</i>	1 <i>8.51</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	57 <i>9.26</i>	
Coarctation of aorta	16 <i>4.39</i>	10 <i>4.34</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	26 <i>4.23</i>	
Common truncus	1 <i>0.27</i>	4 <i>1.74</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.98</i>	
Congenital cataract	4 <i>1.10</i>	5 <i>2.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>1.46</i>	
Congenital hip dislocation	2 <i>0.55</i>	3 <i>1.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.81</i>	+
Diaphragmatic hernia	10 <i>2.74</i>	7 <i>3.04</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	17 <i>2.76</i>	
Down syndrome (trisomy 21)	43 <i>11.80</i>	28 <i>12.15</i>	3 <i>25.53</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	75 <i>12.19</i>	
Ebstein's anomaly	3 <i>0.82</i>	2 <i>0.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.81</i>	
Encephalocele	4 <i>1.10</i>	3 <i>1.30</i>	1 <i>8.51</i>	0 <i>0.00</i>	1 <i>32.47</i>	0	9 <i>1.46</i>	
Endocardial cushion defect	14 <i>3.84</i>	13 <i>5.64</i>	1 <i>8.51</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	29 <i>4.71</i>	
Esophageal atresia / tracheoesophageal fistula	9 <i>2.47</i>	2 <i>0.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>1.79</i>	
Fetus or newborn affected by maternal alcohol use	0 <i>0.00</i>	5 <i>2.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.81</i>	
Gastroschisis	14 <i>3.84</i>	4 <i>1.74</i>	0 <i>0.00</i>	2 <i>39.68</i>	0 <i>0.00</i>	0	20 <i>3.25</i>	

Alabama

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	6 <i>1.65</i>	5 <i>2.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>1.79</i>	
Hydrocephalus without Spina Bifida	35 <i>9.60</i>	15 <i>6.51</i>	1 <i>8.51</i>	0 <i>0.00</i>	1 <i>32.47</i>	0	52 <i>8.45</i>	
Hypoplastic left heart syndrome	6 <i>1.65</i>	4 <i>1.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>1.63</i>	
Hypospadias and Epispadias	59 <i>16.18</i>	35 <i>15.19</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	95 <i>15.44</i>	+
Microcephalus	20 <i>5.49</i>	24 <i>10.42</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	45 <i>7.31</i>	
Obstructive genitourinary defect	87 <i>23.86</i>	56 <i>24.30</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	144 <i>23.40</i>	
Omphalocele	9 <i>2.47</i>	7 <i>3.04</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	17 <i>2.76</i>	
Pulmonary valve atresia and stenosis	14 <i>3.84</i>	8 <i>3.47</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	23 <i>3.74</i>	
Pyloric stenosis	84 <i>23.04</i>	18 <i>7.81</i>	2 <i>17.02</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	104 <i>16.90</i>	
Rectal and large intestinal atresia / stenosis	15 <i>4.11</i>	11 <i>4.77</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	27 <i>4.39</i>	
Reduction deformity, lower limbs	3 <i>0.82</i>	5 <i>2.17</i>	0 <i>0.00</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	9 <i>1.46</i>	
Reduction deformity, upper limbs	18 <i>4.94</i>	4 <i>1.74</i>	1 <i>8.51</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	24 <i>3.90</i>	
Renal agenesis / hypoplasia	37 <i>10.15</i>	23 <i>9.98</i>	1 <i>8.51</i>	1 <i>19.84</i>	1 <i>32.47</i>	0	63 <i>10.24</i>	
Spina bifida without anencephalus	12 <i>3.29</i>	10 <i>4.34</i>	2 <i>17.02</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	25 <i>4.06</i>	
Tetralogy of Fallot	17 <i>4.66</i>	14 <i>6.08</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	31 <i>5.04</i>	
Transposition of great arteries	16 <i>4.39</i>	3 <i>1.30</i>	1 <i>8.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	20 <i>3.25</i>	
Tricuspid valve atresia and stenosis	4 <i>1.10</i>	3 <i>1.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	7 <i>1.14</i>	
Trisomy 13 (Patau syndrome)	13 <i>3.57</i>	4 <i>1.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	17 <i>2.76</i>	
Trisomy 18 (Edwards syndrome)	11 <i>3.02</i>	7 <i>3.04</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	18 <i>2.93</i>	
Ventricular septal defect	48 <i>13.17</i>	37 <i>16.06</i>	3 <i>25.53</i>	1 <i>19.84</i>	0 <i>0.00</i>	0	79 <i>12.84</i>	+
Total Live Births	36,456	23,041	1,175	504	308		61,528	

Alabama

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	42	33	75
	7.48	61.40	12.19
Trisomy 13 (Patau syndrome)	11	6	17
	1.96	11.16	2.76
Trisomy 18 (Edwards syndrome)	9	9	18
	1.60	16.74	2.93
Total Live Births	56,143	5,375	61,528

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Atrial septal defect: isolated cases not reported
2. 1998-2002, Congenital hip dislocation: isolated cases not reported
3. 1998-2002, Hypospadias and Epispadias: isolated 1st degree hypospadias not reported
4. 1998-2002, Ventricular septal defect: isolated cases not reported

Alaska

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	<6				<6		4	
							0.80	
Aniridia	<6				<6		<6	
Anophthalmia / microphthalmia	6				8		17	
	1.98				6.62		3.41	
Anotia / microtia	<6				<6		20	
							4.02	
Aortic valve stenosis	<6				<6		17	
							3.41	
Atrial septal defect	200				180		499	
	65.99				149.06		100.18	
Biliary atresia	<6				<6		9	
							1.81	
Bladder exstrophy	<6				<6		7	
							1.41	
Choanal atresia	<6				<6		17	
							3.41	
Cleft lip with and without cleft palate	41				31		87	
	13.53				25.67		17.47	
Cleft palate without cleft lip	34				24		67	
	11.22				19.87		13.45	
Coarctation of aorta	16				9		33	
	5.28				7.45		6.63	
Common truncus	<6				<6		10	
							2.01	
Congenital cataract	12				8		23	
	3.96				6.62		4.62	
Congenital hip dislocation	76				25		126	
	25.08				20.70		25.30	
Diaphragmatic hernia	15				10		29	
	4.95				8.28		5.82	
Down syndrome (trisomy 21)	34				18		77	
	11.22				14.91		15.46	
Ebstein's anomaly	<6				<6		6	
							1.20	
Encephalocele	<6				<6		11	
							2.21	
Endocardial cushion defect	12				8		30	
	3.96				6.62		6.02	
Esophageal atresia / tracheoesophageal fistula	<6				<6		16	
							3.21	
Hirschsprung's disease (congenital megacolon)	30				13		56	
	9.90				10.77		11.24	
Hydrocephalus without Spina Bifida	24				25		68	
	7.92				20.70		13.65	

Alaska

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	<6				<6		19	
							3.81	
Hypospadias and Epispadias	102				38		185	
	33.65				31.47		37.14	
Microcephalus	55				55		139	
	18.15				45.54		27.91	
Obstructive genitourinary defect	81				28		143	
	26.73				23.19		28.71	
Patent ductus arteriosus	152				101		315	+
	50.15				83.64		63.24	
Pulmonary valve atresia and stenosis	8				18		32	+
	2.64				14.91		6.42	
Pyloric stenosis	62				53		144	
	20.46				43.89		28.91	
Rectal and large intestinal atresia / stenosis	23				15		49	
	7.59				12.42		9.84	
Reduction deformity, lower limbs	<6				<6		31	
							6.22	
Reduction deformity, upper limbs	7				6		15	
	2.31				4.97		3.01	
Renal agenesis / hypoplasia	<6				<6		20	
							4.02	
Spina bifida without anencephalus	10				6		21	
	3.30				4.97		4.22	
Tetralogy of Fallot	14				23		42	
	4.62				19.05		8.43	
Transposition of great arteries	12				6		27	
	3.96				4.97		5.42	
Tricuspid valve atresia and stenosis	<6				<6		11	
							2.21	
Trisomy 13 (Patau syndrome)	<6				<6		9	
							1.81	
Trisomy 18 (Edwards syndrome)	<6				<6		9	
							1.81	
Ventricular septal defect	153				184		419	
	50.48				152.37		84.12	
Total Live Births	30,308				12,076		49,811	

Alaska

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	49	26	75
	11.40	38.17	15.06
Trisomy 13 (Patau syndrome)	6	<6	9
	1.40		1.81
Trisomy 18 (Edwards syndrome)	<6	<6	9
			1.81
Total Live Births	42,964	6,811	49,795

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Patent ductus arteriosus: birth weight \geq 2500 grams only
2. 1998-2002, Pulmonary valve atresia and stenosis: adjusted for over-reporting; based on medical chart review
3. Alaska conducts surveillance for FAS using FASSNET methodology. ICD-9 case counts do not accurately reflect FAS prevalence. Contact the program for data on FAS

Arizona

Birth Defects Counts and Rates 1998-1999

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	12 <i>1.57</i>	1 <i>2.00</i>	10 <i>1.63</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	24 <i>1.49</i>	
Anencephalus	10 <i>1.30</i>	1 <i>2.00</i>	17 <i>2.78</i>	1 <i>3.05</i>	0 <i>0.00</i>	1	30 <i>1.86</i>	
Aniridia	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.33</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	3 <i>0.19</i>	
Anophthalmia / microphthalmia	9 <i>1.17</i>	0 <i>0.00</i>	14 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	3	26 <i>1.61</i>	
Anotia / microtia	13 <i>1.70</i>	0 <i>0.00</i>	24 <i>3.92</i>	0 <i>0.00</i>	1 <i>14.03</i>	12	50 <i>3.10</i>	
Aortic valve stenosis	37 <i>4.83</i>	1 <i>2.00</i>	19 <i>3.11</i>	0 <i>0.00</i>	1 <i>14.03</i>	9	67 <i>4.16</i>	
Atrial septal defect	91 <i>11.87</i>	3 <i>6.01</i>	88 <i>14.38</i>	2 <i>6.11</i>	1 <i>14.03</i>	39	224 <i>13.91</i>	
Biliary atresia	5 <i>0.65</i>	0 <i>0.00</i>	4 <i>0.65</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>0.56</i>	
Bladder exstrophy	1 <i>0.13</i>	1 <i>2.00</i>	1 <i>0.16</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	4 <i>0.25</i>	
Choanal atresia	10 <i>1.30</i>	0 <i>0.00</i>	12 <i>1.96</i>	0 <i>0.00</i>	0 <i>0.00</i>	4	26 <i>1.61</i>	
Cleft lip with and without cleft palate	84 <i>10.96</i>	5 <i>10.01</i>	68 <i>11.11</i>	3 <i>9.16</i>	1 <i>14.03</i>	22	183 <i>11.36</i>	
Cleft palate without cleft lip	48 <i>6.26</i>	3 <i>6.01</i>	42 <i>6.86</i>	1 <i>3.05</i>	0 <i>0.00</i>	17	111 <i>6.89</i>	
Coarctation of aorta	31 <i>4.04</i>	1 <i>2.00</i>	35 <i>5.72</i>	1 <i>3.05</i>	1 <i>14.03</i>	10	79 <i>4.90</i>	
Common truncus	5 <i>0.65</i>	0 <i>0.00</i>	5 <i>0.82</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	12 <i>0.74</i>	
Congenital cataract	10 <i>1.30</i>	0 <i>0.00</i>	9 <i>1.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	25 <i>1.55</i>	
Congenital hip dislocation	53 <i>6.91</i>	1 <i>2.00</i>	50 <i>8.17</i>	2 <i>6.11</i>	0 <i>0.00</i>	14	120 <i>7.45</i>	
Diaphragmatic hernia	23 <i>3.00</i>	2 <i>4.01</i>	19 <i>3.11</i>	0 <i>0.00</i>	1 <i>14.03</i>	4	49 <i>3.04</i>	
Down syndrome (trisomy 21)	101 <i>13.18</i>	4 <i>8.01</i>	94 <i>15.36</i>	5 <i>15.26</i>	2 <i>28.05</i>	32	238 <i>14.77</i>	
Ebstein's anomaly	5 <i>0.65</i>	0 <i>0.00</i>	6 <i>0.98</i>	1 <i>3.05</i>	0 <i>0.00</i>	1	13 <i>0.81</i>	
Encephalocele	9 <i>1.17</i>	1 <i>2.00</i>	7 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	19 <i>1.18</i>	
Endocardial cushion defect	43 <i>5.61</i>	2 <i>4.01</i>	29 <i>4.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	80 <i>4.97</i>	
Esophageal atresia / tracheoesophageal fistula	15 <i>1.96</i>	2 <i>4.01</i>	12 <i>1.96</i>	0 <i>0.00</i>	0 <i>0.00</i>	4	33 <i>2.05</i>	
Fetus or newborn affected by maternal alcohol use	3 <i>0.39</i>	0 <i>0.00</i>	1 <i>0.16</i>	0 <i>0.00</i>	1 <i>14.03</i>	11	16 <i>0.99</i>	

Arizona

Birth Defects Counts and Rates 1998-1999

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Gastroschisis	25 <i>3.26</i>	0 <i>0.00</i>	29 <i>4.74</i>	3 <i>9.16</i>	1 <i>14.03</i>	9	67 <i>4.16</i>	
Hirschsprung's disease (congenital megacolon)	9 <i>1.17</i>	2 <i>4.01</i>	6 <i>0.98</i>	3 <i>9.16</i>	0 <i>0.00</i>	1	21 <i>1.30</i>	
Hydrocephalus without Spina Bifida	34 <i>4.44</i>	2 <i>4.01</i>	39 <i>6.37</i>	2 <i>6.11</i>	0 <i>0.00</i>	10	87 <i>5.40</i>	
Hypoplastic left heart syndrome	11 <i>1.44</i>	0 <i>0.00</i>	8 <i>1.31</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	21 <i>1.30</i>	
Hypospadias and Epispadias	298 <i>38.88</i>	19 <i>38.05</i>	115 <i>18.79</i>	7 <i>21.37</i>	1 <i>14.03</i>	26	466 <i>28.93</i>	
Microcephalus	45 <i>5.87</i>	1 <i>2.00</i>	41 <i>6.70</i>	5 <i>15.26</i>	2 <i>28.05</i>	20	114 <i>7.08</i>	
Obstructive genitourinary defect	123 <i>16.05</i>	5 <i>10.01</i>	94 <i>15.36</i>	4 <i>12.21</i>	2 <i>28.05</i>	28	256 <i>15.89</i>	
Omphalocele	13 <i>1.70</i>	0 <i>0.00</i>	13 <i>2.12</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	28 <i>1.74</i>	
Pulmonary valve atresia and stenosis	68 <i>8.87</i>	0 <i>0.00</i>	47 <i>7.68</i>	0 <i>0.00</i>	0 <i>0.00</i>	10	125 <i>7.76</i>	
Pyloric stenosis	156 <i>20.35</i>	6 <i>12.02</i>	107 <i>17.49</i>	0 <i>0.00</i>	1 <i>14.03</i>	10	280 <i>17.38</i>	
Rectal and large intestinal atresia / stenosis	36 <i>4.70</i>	1 <i>2.00</i>	23 <i>3.76</i>	2 <i>6.11</i>	2 <i>28.05</i>	5	69 <i>4.28</i>	
Reduction deformity, lower limbs	13 <i>1.70</i>	2 <i>4.01</i>	16 <i>2.61</i>	0 <i>0.00</i>	1 <i>14.03</i>	5	37 <i>2.30</i>	
Reduction deformity, upper limbs	27 <i>3.52</i>	0 <i>0.00</i>	19 <i>3.11</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	52 <i>3.23</i>	
Renal agenesis / hypoplasia	36 <i>4.70</i>	1 <i>2.00</i>	22 <i>3.60</i>	0 <i>0.00</i>	1 <i>14.03</i>	5	65 <i>4.04</i>	
Spina bifida without anencephalus	31 <i>4.04</i>	1 <i>2.00</i>	33 <i>5.39</i>	0 <i>0.00</i>	1 <i>14.03</i>	5	71 <i>4.41</i>	
Tetralogy of Fallot	27 <i>3.52</i>	1 <i>2.00</i>	24 <i>3.92</i>	0 <i>0.00</i>	0 <i>0.00</i>	5	57 <i>3.54</i>	
Transposition of great arteries	38 <i>4.96</i>	2 <i>4.01</i>	31 <i>5.07</i>	0 <i>0.00</i>	0 <i>0.00</i>	3	74 <i>4.59</i>	
Tricuspid valve atresia and stenosis	7 <i>0.91</i>	0 <i>0.00</i>	3 <i>0.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	12 <i>0.74</i>	
Trisomy 13 (Patau syndrome)	5 <i>0.65</i>	2 <i>4.01</i>	7 <i>1.14</i>	1 <i>3.05</i>	0 <i>0.00</i>	2	17 <i>1.06</i>	
Trisomy 18 (Edwards syndrome)	13 <i>1.70</i>	0 <i>0.00</i>	11 <i>1.80</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	30 <i>1.86</i>	
Ventricular septal defect	98 <i>12.78</i>	9 <i>18.03</i>	117 <i>19.12</i>	4 <i>12.21</i>	2 <i>28.05</i>	36	266 <i>16.51</i>	
Total Live Births	76,654	4,993	61,189	3,276	713		161,083	

Arizona

Trisomy Counts and Rates by Maternal Age 1998-1999

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	133	105	238
	9.34	56.32	14.77
Trisomy 13 (Patau syndrome)	13	4	17
	0.91	2.15	1.06
Trisomy 18 (Edwards syndrome)	20	10	30
	1.40	5.36	1.86
Total Live Births	142,440	18,643	161,083

(**) Total includes unknown age

Arkansas

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	32 2.43	9 2.35	0 0.00	0 0.00	0 0.00	3	44 2.37	
Anencephalus	54 4.10	10 2.61	6 5.14	1 4.41	0 0.00	2	73 3.93	
Aniridia	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Anophthalmia / microphthalmia	35 2.66	8 2.09	2 1.71	0 0.00	0 0.00	0	42 2.26	
Anotia / microtia	23 1.75	2 0.52	2 1.71	0 0.00	0 0.00	0	27 1.45	
Aortic valve stenosis	56 4.25	8 2.09	4 3.42	2 8.83	0 0.00	0	70 3.77	
Atrial septal defect	431 32.71	128 33.38	37 31.68	2 8.83	1 9.10	10	609 32.79	
Biliary atresia	5 0.38	6 1.56	2 1.71	1 4.41	0 0.00	0	14 0.75	
Bladder exstrophy	5 0.38	2 0.52	0 0.00	0 0.00	0 0.00	0	7 0.38	
Choanal atresia	11 0.83	2 0.52	2 1.71	0 0.00	0 0.00	0	15 0.81	
Cleft lip with and without cleft palate	177 13.43	19 4.96	11 9.42	3 13.24	0 0.00	3	213 11.47	
Cleft palate without cleft lip	101 7.67	16 4.17	4 3.42	1 4.41	0 0.00	2	124 6.68	
Coarctation of aorta	77 5.84	13 3.39	7 5.99	0 0.00	0 0.00	0	97 5.22	
Common truncus	15 1.14	2 0.52	1 0.86	0 0.00	0 0.00	0	18 0.97	
Congenital cataract	32 2.43	13 3.39	2 1.71	0 0.00	0 0.00	1	48 2.58	
Congenital hip dislocation	60 4.55	6 1.56	8 6.85	0 0.00	1 9.10	1	76 4.09	
Diaphragmatic hernia	52 3.95	9 2.35	3 2.57	0 0.00	0 0.00	0	64 3.45	
Down syndrome (trisomy 21)	146 11.08	37 9.65	25 21.40	1 4.41	0 0.00	3	212 11.42	
Ebstein's anomaly	12 0.91	0 0.00	2 1.71	0 0.00	0 0.00	0	14 0.75	
Encephalocele	18 1.37	4 1.04	1 0.86	0 0.00	0 0.00	0	23 1.24	
Endocardial cushion defect	47 3.57	13 3.39	2 1.71	1 4.41	0 0.00	1	64 3.45	
Esophageal atresia / tracheoesophageal fistula	40 3.04	7 1.83	3 2.57	2 8.83	1 9.10	0	53 2.85	
Fetus or newborn affected by maternal alcohol use	3 0.23	10 2.61	0 0.00	0 0.00	0 0.00	0	13 0.70	

Arkansas

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Gastroschisis	69 <i>5.24</i>	11 <i>2.87</i>	6 <i>5.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	4	90 <i>4.85</i>	
Hirschsprung's disease (congenital megacolon)	12 <i>0.91</i>	6 <i>1.56</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	20 <i>1.08</i>	
Hydrocephalus without Spina Bifida	135 <i>10.25</i>	49 <i>12.78</i>	7 <i>5.99</i>	1 <i>4.41</i>	0 <i>0.00</i>	2	194 <i>10.45</i>	
Hypoplastic left heart syndrome	52 <i>3.95</i>	8 <i>2.09</i>	3 <i>2.57</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	63 <i>3.39</i>	
Hypospadias and Epispadias	473 <i>35.90</i>	89 <i>23.21</i>	15 <i>12.84</i>	4 <i>17.65</i>	0 <i>0.00</i>	5	586 <i>31.55</i>	
Microcephalus	51 <i>3.87</i>	25 <i>6.52</i>	3 <i>2.57</i>	1 <i>4.41</i>	0 <i>0.00</i>	2	82 <i>4.42</i>	
Obstructive genitourinary defect	178 <i>13.51</i>	39 <i>10.17</i>	17 <i>14.55</i>	4 <i>17.65</i>	0 <i>0.00</i>	1	239 <i>12.87</i>	
Omphalocele	32 <i>2.43</i>	14 <i>3.65</i>	6 <i>5.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	54 <i>2.91</i>	
Patent ductus arteriosus	334 <i>25.35</i>	101 <i>26.34</i>	36 <i>30.82</i>	4 <i>17.65</i>	0 <i>0.00</i>	2	477 <i>25.69</i>	
Pulmonary valve atresia and stenosis	139 <i>10.55</i>	48 <i>12.52</i>	10 <i>8.56</i>	1 <i>4.41</i>	1 <i>9.10</i>	3	202 <i>10.88</i>	
Pyloric stenosis	137 <i>10.40</i>	13 <i>3.39</i>	12 <i>10.27</i>	0 <i>0.00</i>	1 <i>9.10</i>	3	166 <i>8.94</i>	
Rectal and large intestinal atresia / stenosis	75 <i>5.69</i>	18 <i>4.69</i>	5 <i>4.28</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	100 <i>5.38</i>	
Reduction deformity, lower limbs	26 <i>1.97</i>	9 <i>2.35</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	35 <i>1.88</i>	
Reduction deformity, upper limbs	48 <i>3.64</i>	14 <i>3.65</i>	2 <i>1.71</i>	0 <i>0.00</i>	0 <i>0.00</i>	3	67 <i>3.61</i>	
Renal agenesis / hypoplasia	64 <i>4.86</i>	15 <i>3.91</i>	5 <i>4.28</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	84 <i>4.52</i>	
Spina bifida without anencephalus	70 <i>5.31</i>	16 <i>4.17</i>	5 <i>4.28</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	93 <i>5.01</i>	
Tetralogy of Fallot	39 <i>2.96</i>	20 <i>5.22</i>	4 <i>3.42</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	65 <i>3.50</i>	
Transposition of great arteries	73 <i>5.54</i>	9 <i>2.35</i>	8 <i>6.85</i>	1 <i>4.41</i>	0 <i>0.00</i>	0	91 <i>4.90</i>	
Tricuspid valve atresia and stenosis	19 <i>1.44</i>	2 <i>0.52</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	22 <i>1.18</i>	
Trisomy 13 (Patau syndrome)	13 <i>0.99</i>	3 <i>0.78</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	16 <i>0.86</i>	
Trisomy 18 (Edwards syndrome)	25 <i>1.90</i>	8 <i>2.09</i>	2 <i>1.71</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	35 <i>1.88</i>	
Ventricular septal defect	455 <i>34.53</i>	144 <i>37.56</i>	50 <i>42.81</i>	6 <i>26.48</i>	2 <i>18.20</i>	14	671 <i>36.13</i>	
Total Live Births	131,754	38,341	11,680	2,266	1,099		185,709	

Arkansas

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	139	74	217
	8.08	54.63	11.68
Trisomy 13 (Patau syndrome)	12	4	16
	0.70	2.95	0.86
Trisomy 18 (Edwards syndrome)	20	14	35
	1.16	10.34	1.88
Total Live Births	172,123	13,545	185,709

(**) Total includes unknown age

California

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	14 <i>1.51</i>	<5	27 <i>1.69</i>	8 <i>6.55</i>	<5	<5	54 <i>1.87</i>	
Anencephalus	21 <i>2.26</i>	<5	35 <i>2.18</i>	5 <i>4.10</i>	<5	26	89 <i>3.08</i>	
Anophthalmia / microphthalmia	14 <i>1.51</i>	<5	7 <i>0.44</i>	<5	<5	<5	21 <i>0.73</i>	+
Anotia / microtia	17 <i>1.83</i>	<5	57 <i>3.56</i>	6 <i>4.92</i>	<5	<5	83 <i>2.88</i>	+
Aortic valve stenosis	16 <i>1.72</i>	<5	15 <i>0.94</i>	<5	<5	<5	35 <i>1.21</i>	
Atrial septal defect	147 <i>15.84</i>	19 <i>14.10</i>	287 <i>17.92</i>	27 <i>22.12</i>	<5	9	489 <i>16.95</i>	+
Biliary atresia	6 <i>0.65</i>	5 <i>3.71</i>	11 <i>0.69</i>	<5	<5	<5	23 <i>0.80</i>	
Bladder exstrophy	<5	<5	<5	<5	<5	<5	<5	
Choanal atresia	<5	<5	<5	<5	<5	<5	7 <i>0.24</i>	
Cleft lip with and without cleft palate	100 <i>10.77</i>	11 <i>8.16</i>	128 <i>7.99</i>	8 <i>6.55</i>	<5	6	255 <i>8.84</i>	
Cleft palate without cleft lip	41 <i>4.42</i>	7 <i>5.19</i>	48 <i>3.00</i>	<5	<5	<5	105 <i>3.64</i>	
Coarctation of aorta	34 <i>3.66</i>	5 <i>3.71</i>	53 <i>3.31</i>	<5	<5	<5	99 <i>3.43</i>	
Common truncus	7 <i>0.75</i>	<5	7 <i>0.44</i>	<5	<5	<5	14 <i>0.49</i>	
Congenital cataract	8 <i>0.86</i>	<5	15 <i>0.94</i>	<5	<5	<5	24 <i>0.83</i>	
Diaphragmatic hernia	15 <i>1.62</i>	<5	35 <i>2.18</i>	<5	<5	<5	58 <i>2.01</i>	
Down syndrome (trisomy 21)	104 <i>11.20</i>	11 <i>8.16</i>	241 <i>15.04</i>	12 <i>9.83</i>	<5	6	378 <i>13.10</i>	+
Encephalocele	<5	<5	8 <i>0.50</i>	<5	<5	<5	17 <i>0.59</i>	
Endocardial cushion defect	33 <i>3.56</i>	<5	53 <i>3.31</i>	5 <i>4.10</i>	<5	<5	100 <i>3.47</i>	
Esophageal atresia / tracheoesophageal fistula	11 <i>1.19</i>	<5	23 <i>1.44</i>	<5	<5	<5	40 <i>1.39</i>	
Fetus or newborn affected by maternal alcohol use	<5	<5	8 <i>0.50</i>	<5	<5	<5	15 <i>0.52</i>	
Gastroschisis	37 <i>3.99</i>	<5	55 <i>3.43</i>	8 <i>6.55</i>	<5	<5	108 <i>3.74</i>	
Hydrocephalus without Spina Bifida	22 <i>2.37</i>	5 <i>3.71</i>	34 <i>2.12</i>	<5	<5	<5	66 <i>2.29</i>	
Hypoplastic left heart syndrome	22 <i>2.37</i>	<5	31 <i>1.94</i>	<5	<5	<5	58 <i>2.01</i>	
Hypospadias and Epispadias	19 <i>2.05</i>	<5	31 <i>1.94</i>	<5	<5	<5	58 <i>2.01</i>	+

California

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Omphalocele	12 1.29	<5	8 0.50	<5	<5	<5	21 0.73	
Pulmonary valve atresia and stenosis	7 0.75	<5	17 1.06	<5	0 0.00	0	27 0.94	
Rectal and large intestinal atresia / stenosis	29 3.12	<5	47 2.93	7 5.73	<5	<5	87 3.02	
Reduction deformity, lower limbs	12 1.29	<5	21 1.31	<5	<5	<5	43 1.49	
Reduction deformity, upper limbs	26 2.80	<5	64 4.00	<5	<5	<5	102 3.54	
Renal agenesis / hypoplasia	5 0.54	<5	12 0.75	<5	<5	<5	23 0.80	
Spina bifida without anencephalus	28 3.02	6 4.45	67 4.18	<5	<5	6	110 3.81	
Tetralogy of Fallot	28 3.02	<5	62 3.87	5 4.10	<5	<5	104 3.60	
Transposition of great arteries	38 4.09	5 3.71	61 3.81	<5	<5	<5	111 3.85	
Tricuspid valve atresia and stenosis	<5	<5	17 1.06	<5	<5	<5	22 0.76	
Trisomy 13 (Patau syndrome)	6 0.65	<5	15 0.94	<5	<5	<5	27 0.94	+
Trisomy 18 (Edwards syndrome)	9 0.97	<5	22 1.37	6 4.92	<5	<5	47 1.63	+
Ventricular septal defect	132 14.22	16 11.87	250 15.61	16 13.11	<5	6	420 14.56	+
Total Live Births	92,818	13,475	160,196	12,207	2,175		288,542	

California

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	243	132	378
	9.41	43.75	13.10
Trisomy 13 (Patau syndrome)	20	6	27
	0.77	1.99	0.94
Trisomy 18 (Edwards syndrome)	26	17	47
	1.01	5.63	1.63
Total Live Births	258,361	30,173	288,542

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anophthalmia / microphthalmia: bilateral cases only that have been confirmed by physician review
2. 1998-2002, Anotia / microtia: diagnosis confirmed by physician review
3. 1998-2002, Atrial septal defect:
 - a) Diagnosis confirmed by physician review; prior to DOB 1/1/00, cases were reportable in combination only.
 - b) If the ASD and/or VSD are a component of another major heart malformation, it is not counted.
 - c) The only chromosomal abnormalities included in this dataset are Trisomy 13, 18, and 21.
4. 1998-2002, Down syndrome (trisomy 21): diagnosis confirmed by cytogenetics
5. 1998-2002, Hypospadias and Epispadias: no epispadias in registry; 2nd and 3rd degree hypospadias only
6. 1998-2002, Trisomy 13 (Patau syndrome): diagnosis confirmed by cytogenetics
7. 1998-2002, Trisomy 18 (Edwards syndrome): diagnosis confirmed by cytogenetics
8. 1998-2002, Ventricular septal defect:
 - a) Diagnosis confirmed by physician review; prior to DOB 1/1/00, cases were reportable in combination only.
 - b) If the ASD and/or VSD are a component of another major heart malformation, it is not counted.
 - c) The only chromosomal abnormalities included in this dataset are Trisomy 13, 18, and 21.
9. Cardiovascular defects: diagnosis confirmed by echo, cath, surgery or autopsy
10. The California Birth Defects Monitoring Program does not report rates based on <5 cases.

Colorado

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	15 0.73	0 0.00	18 2.00	0 0.00	1 3.97	8	42 1.30	+
Aniridia	2 0.10	0 0.00	2 0.22	2 2.02	0 0.00	0	6 0.19	
Anophthalmia / microphthalmia	18 0.87	0 0.00	17 1.89	0 0.00	2 7.94	2	39 1.21	
Anotia / microtia	30 1.46	1 0.71	31 3.45	2 2.02	0 0.00	0	64 1.98	
Aortic valve stenosis	75 3.64	3 2.14	32 3.56	3 3.03	1 3.97	4	118 3.66	
Atrial septal defect	1,134 55.02	85 60.54	471 52.39	52 52.57	20 79.43	5	1,767 54.78	
Biliary atresia	23 1.12	3 2.14	14 1.56	2 2.02	0 0.00	0	42 1.30	
Bladder exstrophy	7 0.34	0 0.00	4 0.44	0 0.00	0 0.00	1	12 0.37	
Choanal atresia	27 1.31	1 0.71	10 1.11	1 1.01	0 0.00	2	41 1.27	
Cleft lip with and without cleft palate	233 11.30	8 5.70	118 13.13	9 9.10	6 23.83	6	380 11.78	
Cleft palate without cleft lip	178 8.64	8 5.70	60 6.67	6 6.07	2 7.94	5	259 8.03	
Coarctation of aorta	209 10.14	3 2.14	74 8.23	6 6.07	1 3.97	4	297 9.21	
Common truncus	22 1.07	2 1.42	6 0.67	0 0.00	2 7.94	0	32 0.99	
Congenital cataract	63 3.06	2 1.42	30 3.34	3 3.03	1 3.97	0	99 3.07	
Congenital hip dislocation	386 18.73	11 7.83	148 16.46	13 13.14	4 15.89	0	562 17.42	
Diaphragmatic hernia	82 3.98	9 6.41	47 5.23	3 3.03	1 3.97	13	155 4.81	
Down syndrome (trisomy 21)	279 13.54	16 11.40	105 11.68	10 10.11	2 7.94	207	619 19.19	
Ebstein's anomaly	23 1.12	0 0.00	9 1.00	0 0.00	0 0.00	2	34 1.05	
Encephalocele	15 0.73	1 0.71	8 0.89	0 0.00	0 0.00	9	33 1.02	
Endocardial cushion defect	75 3.64	3 2.14	33 3.67	2 2.02	1 3.97	8	122 3.78	
Esophageal atresia / tracheoesophageal fistula	121 5.87	8 5.70	30 3.34	4 4.04	0 0.00	5	168 5.21	
Gastroschisis	56 2.72	4 2.85	50 5.56	5 5.06	1 3.97	5	121 3.75	+
Hirschsprung's disease (congenital megacolon)	50 2.43	7 4.99	15 1.67	1 1.01	0 0.00	1	74 2.29	
Hydrocephalus without Spina Bifida	172 8.34	9 6.41	72 8.01	8 8.09	4 15.89	24	289 8.96	

Colorado

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	60 2.91	2 1.42	23 2.56	2 2.02	0 0.00	8	95 2.95	
Hypospadias and Epispadias	1,202 58.32	79 56.27	223 24.81	35 35.39	4 15.89	4	1,547 47.96	
Microcephalus	78 3.78	13 9.26	61 6.79	5 5.06	2 7.94	2	161 4.99	
Obstructive genitourinary defect	613 29.74	39 27.78	264 29.37	37 37.41	7 27.80	13	973 30.17	
Omphalocele	56 2.72	2 1.42	17 1.89	4 4.04	0 0.00	12	91 2.82	+
Patent ductus arteriosus	817 39.64	67 47.72	333 37.04	31 31.34	10 39.71	0	1,258 39.00	+
Pulmonary valve atresia and stenosis	212 10.29	26 18.52	96 10.68	9 9.10	5 19.86	4	352 10.91	
Pyloric stenosis	382 18.53	7 4.99	162 18.02	6 6.07	1 3.97	0	558 17.30	
Rectal and large intestinal atresia / stenosis	121 5.87	8 5.70	44 4.89	4 4.04	0 0.00	6	183 5.67	
Reduction deformity, lower limbs	33 1.60	4 2.85	20 2.22	1 1.01	0 0.00	4	62 1.92	
Reduction deformity, upper limbs	77 3.74	8 5.70	30 3.34	3 3.03	0 0.00	9	127 3.94	
Renal agenesis / hypoplasia	87 4.22	9 6.41	47 5.23	5 5.06	1 3.97	13	162 5.02	
Spina bifida without anencephalus	63 3.06	0 0.00	25 2.78	0 0.00	0 0.00	15	103 3.19	+
Tetralogy of Fallot	89 4.32	9 6.41	29 3.23	3 3.03	1 3.97	2	133 4.12	
Transposition of great arteries	93 4.51	4 2.85	39 4.34	2 2.02	3 11.91	2	143 4.43	
Tricuspid valve atresia and stenosis	22 1.07	4 2.85	15 1.67	2 2.02	1 3.97	1	45 1.40	
Trisomy 13 (Patau syndrome)	25 1.21	1 0.71	12 1.33	1 1.01	2 7.94	35	76 2.36	
Trisomy 18 (Edwards syndrome)	56 2.72	8 5.70	15 1.67	4 4.04	0 0.00	76	159 4.93	
Ventricular septal defect	821 39.83	64 45.58	364 40.49	28 28.31	13 51.63	14	1,304 40.43	+
Total Live Births	206,117	14,040	89,899	9,891	2,518		322,547	

Colorado

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	312	305	619
	11.27	66.94	19.19
Trisomy 13 (Patau syndrome)	47	29	76
	1.70	6.36	2.36
Trisomy 18 (Edwards syndrome)	74	83	159
	2.67	18.22	4.93
Total Live Births	276,859	45,562	322,547

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: live births and fetal deaths – any gestational age
2. 1998-2002, Gastroschisis: medical record review
3. 1998-2002, Omphalocele: medical record review
4. 1998-2002, Patent ductus arteriosus: cases with birth weight of ≥ 2500 grams
5. 1998-2002, Spina bifida without anencephalus: live births and fetal deaths – any gestational age
6. 1998-2002, Ventricular septal defect: includes probable cases

Florida

Birth Defects Counts and Rates 1998-2001

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	18 <i>0.43</i>	10 <i>0.56</i>	11 <i>0.62</i>	2 <i>1.08</i>	0 <i>0.00</i>	0	41 <i>0.51</i>	
Aniridia	4 <i>0.09</i>	4 <i>0.22</i>	3 <i>0.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>0.14</i>	
Anophthalmia / microphthalmia	39 <i>0.92</i>	14 <i>0.78</i>	19 <i>1.08</i>	1 <i>0.54</i>	1 <i>3.98</i>	0	74 <i>0.92</i>	
Anotia / microtia	28 <i>0.66</i>	7 <i>0.39</i>	24 <i>1.36</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	59 <i>0.74</i>	
Aortic valve stenosis	90 <i>2.13</i>	14 <i>0.78</i>	15 <i>0.85</i>	3 <i>1.63</i>	0 <i>0.00</i>	0	122 <i>1.52</i>	
Atrial septal defect	3,261 <i>77.18</i>	1,709 <i>95.34</i>	1,828 <i>103.68</i>	127 <i>68.82</i>	17 <i>67.70</i>	12	6,954 <i>86.88</i>	
Biliary atresia	48 <i>1.14</i>	34 <i>1.90</i>	13 <i>0.74</i>	1 <i>0.54</i>	0 <i>0.00</i>	0	96 <i>1.20</i>	
Bladder exstrophy	14 <i>0.33</i>	8 <i>0.45</i>	3 <i>0.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	25 <i>0.31</i>	
Choanal atresia	80 <i>1.89</i>	34 <i>1.90</i>	21 <i>1.19</i>	0 <i>0.00</i>	1 <i>3.98</i>	0	136 <i>1.70</i>	
Cleft lip with and without cleft palate	446 <i>10.56</i>	112 <i>6.25</i>	147 <i>8.34</i>	16 <i>8.67</i>	4 <i>15.93</i>	1	726 <i>9.07</i>	
Cleft palate without cleft lip	249 <i>5.89</i>	77 <i>4.30</i>	59 <i>3.35</i>	1 <i>0.54</i>	1 <i>3.98</i>	1	388 <i>4.85</i>	
Coarctation of aorta	234 <i>5.54</i>	91 <i>5.08</i>	73 <i>4.14</i>	2 <i>1.08</i>	1 <i>3.98</i>	1	402 <i>5.02</i>	
Common truncus	41 <i>0.97</i>	19 <i>1.06</i>	12 <i>0.68</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	72 <i>0.90</i>	
Congenital cataract	54 <i>1.28</i>	45 <i>2.51</i>	24 <i>1.36</i>	1 <i>0.54</i>	0 <i>0.00</i>	0	124 <i>1.55</i>	
Congenital hip dislocation	593 <i>14.03</i>	115 <i>6.42</i>	249 <i>14.12</i>	24 <i>13.00</i>	5 <i>19.91</i>	1	987 <i>12.33</i>	
Diaphragmatic hernia	131 <i>3.10</i>	51 <i>2.85</i>	66 <i>3.74</i>	3 <i>1.63</i>	1 <i>3.98</i>	0	252 <i>3.15</i>	
Down syndrome (trisomy 21)	556 <i>13.16</i>	209 <i>11.66</i>	241 <i>13.67</i>	21 <i>11.38</i>	2 <i>7.96</i>	1	1,030 <i>12.87</i>	
Ebstein's anomaly	33 <i>0.78</i>	6 <i>0.33</i>	11 <i>0.62</i>	2 <i>1.08</i>	0 <i>0.00</i>	0	52 <i>0.65</i>	
Encephalocele	33 <i>0.78</i>	22 <i>1.23</i>	11 <i>0.62</i>	1 <i>0.54</i>	0 <i>0.00</i>	0	67 <i>0.84</i>	
Endocardial cushion defect	191 <i>4.52</i>	76 <i>4.24</i>	49 <i>2.78</i>	7 <i>3.79</i>	0 <i>0.00</i>	1	324 <i>4.05</i>	
Esophageal atresia / tracheoesophageal fistula	131 <i>3.10</i>	34 <i>1.90</i>	35 <i>1.99</i>	5 <i>2.71</i>	1 <i>3.98</i>	0	206 <i>2.57</i>	
Fetus or newborn affected by maternal alcohol use	137 <i>3.24</i>	105 <i>5.86</i>	17 <i>0.96</i>	2 <i>1.08</i>	2 <i>7.96</i>	0	263 <i>3.29</i>	
Hirschsprung's disease (congenital megacolon)	99 <i>2.34</i>	61 <i>3.40</i>	42 <i>2.38</i>	3 <i>1.63</i>	2 <i>7.96</i>	1	208 <i>2.60</i>	
Hydrocephalus without Spina Bifida	284 <i>6.72</i>	210 <i>11.72</i>	115 <i>6.52</i>	13 <i>7.04</i>	2 <i>7.96</i>	0	624 <i>7.80</i>	

Florida

Birth Defects Counts and Rates 1998-2001

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	99 2.34	59 3.29	41 2.33	5 2.71	2 7.96	1	207 2.59	
Hypospadias and Epispadias	1,727 40.87	526 29.34	416 23.59	42 22.76	6 23.89	0	2,717 33.94	
Microcephalus	241 5.70	221 12.33	122 6.92	7 3.79	2 7.96	1	594 7.42	
Obstructive genitourinary defect	1,069 25.30	320 17.85	458 25.98	45 24.38	4 15.93	1	1,897 23.70	
Patent ductus arteriosus	1,640 38.81	819 45.69	818 46.40	65 35.22	8 31.86	8	3,358 41.95	
Pulmonary valve atresia and stenosis	409 9.68	292 16.29	175 9.93	16 8.67	4 15.93	4	900 11.24	
Pyloric stenosis	1,198 28.35	230 12.83	344 19.51	15 8.13	8 31.86	2	1,797 22.45	
Rectal and large intestinal atresia / stenosis	152 3.60	78 4.35	67 3.80	8 4.33	1 3.98	1	307 3.84	
Reduction deformity, lower limbs	60 1.42	28 1.56	20 1.13	1 0.54	0 0.00	0	109 1.36	
Reduction deformity, upper limbs	86 2.04	42 2.34	29 1.64	1 0.54	0 0.00	0	158 1.97	
Renal agenesis / hypoplasia	149 3.53	54 3.01	59 3.35	6 3.25	1 3.98	1	270 3.37	
Spina bifida without anencephalus	160 3.79	65 3.63	73 4.14	4 2.17	1 3.98	1	304 3.80	
Tetralogy of Fallot	241 5.70	119 6.64	81 4.59	5 2.71	0 0.00	2	448 5.60	
Transposition of great arteries	196 4.64	74 4.13	65 3.69	6 3.25	0 0.00	0	341 4.26	
Tricuspid valve atresia and stenosis	58 1.37	33 1.84	23 1.30	0 0.00	0 0.00	1	115 1.44	
Trisomy 13 (Patau syndrome)	53 1.25	32 1.79	20 1.13	1 0.54	0 0.00	0	106 1.32	
Trisomy 18 (Edwards syndrome)	51 1.21	37 2.06	27 1.53	2 1.08	0 0.00	2	119 1.49	
Ventricular septal defect	2,106 49.84	784 43.74	883 50.08	56 30.34	13 51.77	5	3,847 48.06	
Total Live Births	422,544	179,250	176,312	18,455	2,511		800,428	

Florida

Trisomy Counts and Rates by Maternal Age 1998-2001

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	613	417	1,030
	8.91	37.27	12.87
Trisomy 13 (Patau syndrome)	73	33	106
	1.06	2.95	1.32
Trisomy 18 (Edwards syndrome)	79	40	119
	1.15	3.58	1.49
Total Live Births	688,370	111,881	800,428

(**) Total includes unknown age

Georgia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	12 1.24	15 1.57	10 2.73	0 0.00	0 0.00	0	37 1.52	
Anencephalus	31 3.21	28 2.93	12 3.27	3 2.48	0 0.00	3	77 3.17	+
Aniridia	2 0.21	0 0.00	0 0.00	1 0.83	0 0.00	0	3 0.12	
Anophthalmia / microphthalmia	34 3.52	31 3.24	7 1.91	1 0.83	0 0.00	0	73 3.00	
Anotia / microtia	12 1.24	9 0.94	9 2.46	6 4.97	0 0.00	1	37 1.52	
Aortic valve stenosis	28 2.90	16 1.67	11 3.00	2 1.66	0 0.00	0	57 2.34	
Atrial septal defect	222 22.97	271 28.37	92 25.10	20 16.56	0 0.00	11	616 25.32	
Biliary atresia	3 0.31	12 1.26	2 0.55	1 0.83	0 0.00	0	18 0.74	
Bladder exstrophy	3 0.31	2 0.21	0 0.00	0 0.00	0 0.00	0	5 0.21	
Choanal atresia	16 1.66	13 1.36	4 1.09	0 0.00	0 0.00	0	33 1.36	
Cleft lip with and without cleft palate	103 10.66	60 6.28	38 10.37	10 8.28	0 0.00	1	212 8.72	
Cleft palate without cleft lip	93 9.62	52 5.44	20 5.46	8 6.62	0 0.00	2	175 7.19	
Coarctation of aorta	61 6.31	54 5.65	20 5.46	4 3.31	0 0.00	5	144 5.92	
Common truncus	8 0.83	6 0.63	3 0.82	1 0.83	0 0.00	0	18 0.74	
Congenital cataract	29 3.00	19 1.99	7 1.91	1 0.83	0 0.00	0	56 2.30	
Congenital hip dislocation	93 9.62	19 1.99	33 9.00	6 4.97	0 0.00	4	155 6.37	
Diaphragmatic hernia	28 2.90	22 2.30	9 2.46	1 0.83	0 0.00	1	61 2.51	
Down syndrome (trisomy 21)	144 14.90	116 12.14	48 13.09	16 13.25	0 0.00	2	326 13.40	
Ebstein's anomaly	3 0.31	5 0.52	4 1.09	0 0.00	0 0.00	0	12 0.49	
Encephalocele	10 1.03	13 1.36	5 1.36	1 0.83	0 0.00	1	30 1.23	+
Endocardial cushion defect	42 4.35	54 5.65	7 1.91	6 4.97	0 0.00	0	109 4.48	
Esophageal atresia / tracheoesophageal fistula	29 3.00	13 1.36	7 1.91	1 0.83	0 0.00	0	50 2.06	
Fetus or newborn affected by maternal alcohol use	6 0.62	30 3.14	0 0.00	0 0.00	0 0.00	0	36 1.48	
Gastroschisis	20 2.07	22 2.30	19 5.18	1 0.83	0 0.00	0	62 2.55	

Georgia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	16 1.66	31 3.24	7 1.91	3 2.48	0 0.00	1	58 2.38	
Hydrocephalus without Spina Bifida	68 7.04	94 9.84	28 7.64	7 5.80	0 0.00	0	197 8.10	
Hypoplastic left heart syndrome	27 2.79	28 2.93	10 2.73	3 2.48	0 0.00	2	70 2.88	
Hypospadias and Epispadias	403 41.70	322 33.70	51 13.91	25 20.70	0 0.00	9	810 33.30	
Microcephalus	40 4.14	108 11.30	27 7.37	12 9.94	0 0.00	1	188 7.73	
Obstructive genitourinary defect	250 25.87	206 21.56	102 27.82	32 26.50	0 0.00	6	596 24.50	
Omphalocele	20 2.07	28 2.93	5 1.36	3 2.48	0 0.00	1	57 2.34	
Patent ductus arteriosus	304 31.45	272 28.47	124 33.83	38 31.47	0 0.00	12	750 30.83	
Pulmonary valve atresia and stenosis	70 7.24	75 7.85	22 6.00	5 4.14	0 0.00	0	172 7.07	
Pyloric stenosis	179 18.52	65 6.80	54 14.73	9 7.45	0 0.00	2	309 12.70	
Rectal and large intestinal atresia / stenosis	30 3.10	37 3.87	16 4.36	5 4.14	1 21.79	2	91 3.74	
Reduction deformity, lower limbs	10 1.03	22 2.30	5 1.36	1 0.83	0 0.00	0	38 1.56	
Reduction deformity, upper limbs	45 4.66	33 3.45	18 4.91	2 1.66	0 0.00	4	102 4.19	
Renal agenesis / hypoplasia	48 4.97	51 5.34	9 2.46	5 4.14	0 0.00	1	114 4.69	
Spina bifida without anencephalus	29 3.00	36 3.77	17 4.64	0 0.00	0 0.00	2	84 3.45	+
Tetralogy of Fallot	38 3.93	48 5.02	15 4.09	5 4.14	0 0.00	0	106 4.36	
Transposition of great arteries	52 5.38	53 5.55	21 5.73	9 7.45	0 0.00	2	137 5.63	
Tricuspid valve atresia and stenosis	21 2.17	22 2.30	7 1.91	0 0.00	0 0.00	0	50 2.06	
Trisomy 13 (Patau syndrome)	16 1.66	10 1.05	7 1.91	0 0.00	0 0.00	0	33 1.36	
Trisomy 18 (Edwards syndrome)	18 1.86	35 3.66	7 1.91	3 2.48	0 0.00	0	63 2.59	
Ventricular septal defect	466 48.22	314 32.87	192 52.38	36 29.81	0 0.00	11	1,019 41.89	
Total Live Births	96,648	95,540	36,658	12,076	459		243,256	

Georgia

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	174	151	326
	8.49	39.46	13.40
Trisomy 13 (Patau syndrome)	23	10	32
	1.12	2.61	1.32
Trisomy 18 (Edwards syndrome)	39	24	63
	1.90	6.27	2.59
Total Live Births	204,931	38,270	243,256

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: includes terminations
2. 1998-2002, Encephalocele: includes terminations
3. 1998-2002, Spina bifida without anencephalus: includes terminations

Hawaii

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	2 <i>1.15</i>	1 <i>3.57</i>	0 <i>0.00</i>	12 <i>1.99</i>	0 <i>0.00</i>	0	15 <i>1.73</i>	
Anencephalus	8 <i>4.61</i>	0 <i>0.00</i>	1 <i>6.59</i>	17 <i>2.82</i>	0 <i>0.00</i>	2	28 <i>3.22</i>	+
Aniridia	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.33</i>	0 <i>0.00</i>	0	2 <i>0.23</i>	
Anophthalmia / microphthalmia	3 <i>1.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	13 <i>2.15</i>	0 <i>0.00</i>	0	16 <i>1.84</i>	
Anotia / microtia	3 <i>1.73</i>	0 <i>0.00</i>	2 <i>13.18</i>	25 <i>4.14</i>	2 <i>20.43</i>	0	32 <i>3.68</i>	
Aortic valve stenosis	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	4 <i>0.66</i>	0 <i>0.00</i>	0	4 <i>0.46</i>	
Atrial septal defect	39 <i>22.47</i>	5 <i>17.83</i>	6 <i>39.55</i>	157 <i>26.00</i>	1 <i>10.21</i>	1	209 <i>24.04</i>	
Biliary atresia	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	5 <i>0.83</i>	0 <i>0.00</i>	0	5 <i>0.58</i>	
Bladder exstrophy	1 <i>0.58</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.33</i>	1 <i>10.21</i>	0	4 <i>0.46</i>	
Choanal atresia	2 <i>1.15</i>	0 <i>0.00</i>	0 <i>0.00</i>	7 <i>1.16</i>	0 <i>0.00</i>	0	9 <i>1.04</i>	
Cleft lip with and without cleft palate	14 <i>8.07</i>	3 <i>10.70</i>	3 <i>19.78</i>	77 <i>12.75</i>	0 <i>0.00</i>	1	98 <i>11.27</i>	
Cleft palate without cleft lip	12 <i>6.91</i>	1 <i>3.57</i>	1 <i>6.59</i>	38 <i>6.29</i>	0 <i>0.00</i>	0	52 <i>5.98</i>	
Coarctation of aorta	9 <i>5.19</i>	0 <i>0.00</i>	1 <i>6.59</i>	10 <i>1.66</i>	0 <i>0.00</i>	0	20 <i>2.30</i>	
Common truncus	1 <i>0.58</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.33</i>	0 <i>0.00</i>	0	3 <i>0.35</i>	
Congenital cataract	3 <i>1.73</i>	0 <i>0.00</i>	1 <i>6.59</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.46</i>	
Congenital hip dislocation	9 <i>5.19</i>	0 <i>0.00</i>	0 <i>0.00</i>	33 <i>5.47</i>	0 <i>0.00</i>	0	42 <i>4.83</i>	
Diaphragmatic hernia	3 <i>1.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	11 <i>1.82</i>	0 <i>0.00</i>	1	15 <i>1.73</i>	
Down syndrome (trisomy 21)	28 <i>16.13</i>	2 <i>7.13</i>	1 <i>6.59</i>	76 <i>12.59</i>	3 <i>30.64</i>	13	123 <i>14.15</i>	
Ebstein's anomaly	2 <i>1.15</i>	0 <i>0.00</i>	0 <i>0.00</i>	5 <i>0.83</i>	0 <i>0.00</i>	1	8 <i>0.92</i>	
Encephalocele	3 <i>1.73</i>	0 <i>0.00</i>	1 <i>6.59</i>	9 <i>1.49</i>	0 <i>0.00</i>	0	13 <i>1.50</i>	
Endocardial cushion defect	3 <i>1.73</i>	0 <i>0.00</i>	1 <i>6.59</i>	12 <i>1.99</i>	0 <i>0.00</i>	0	16 <i>1.84</i>	
Esophageal atresia / tracheoesophageal fistula	5 <i>2.88</i>	1 <i>3.57</i>	0 <i>0.00</i>	7 <i>1.16</i>	0 <i>0.00</i>	0	13 <i>1.50</i>	
Fetus or newborn affected by maternal alcohol use	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	6 <i>0.99</i>	0 <i>0.00</i>	0	6 <i>0.69</i>	
Gastroschisis	5 <i>2.88</i>	0 <i>0.00</i>	1 <i>6.59</i>	27 <i>4.47</i>	0 <i>0.00</i>	1	34 <i>3.91</i>	

Hawaii

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	1 <i>0.58</i>	1 <i>3.57</i>	0 <i>0.00</i>	14 <i>2.32</i>	1 <i>10.21</i>	0	17 <i>1.96</i>	
Hydrocephalus without Spina Bifida	12 <i>6.91</i>	0 <i>0.00</i>	2 <i>13.18</i>	46 <i>7.62</i>	1 <i>10.21</i>	5	66 <i>7.59</i>	
Hypoplastic left heart syndrome	1 <i>0.58</i>	0 <i>0.00</i>	1 <i>6.59</i>	6 <i>0.99</i>	0 <i>0.00</i>	1	9 <i>1.04</i>	
Hypospadias and Epispadias	53 <i>30.54</i>	8 <i>28.53</i>	7 <i>46.14</i>	173 <i>28.65</i>	3 <i>30.64</i>	0	244 <i>28.07</i>	
Microcephalus	11 <i>6.34</i>	2 <i>7.13</i>	0 <i>0.00</i>	47 <i>7.78</i>	1 <i>10.21</i>	0	61 <i>7.02</i>	
Obstructive genitourinary defect	35 <i>20.17</i>	2 <i>7.13</i>	4 <i>26.37</i>	88 <i>14.57</i>	1 <i>10.21</i>	2	132 <i>15.18</i>	
Omphalocele	5 <i>2.88</i>	0 <i>0.00</i>	0 <i>0.00</i>	12 <i>1.99</i>	0 <i>0.00</i>	3	20 <i>2.30</i>	
Patent ductus arteriosus	150 <i>86.43</i>	18 <i>64.19</i>	24 <i>158.21</i>	659 <i>109.14</i>	9 <i>91.93</i>	8	868 <i>99.85</i>	
Pulmonary valve atresia and stenosis	2 <i>1.15</i>	0 <i>0.00</i>	1 <i>6.59</i>	20 <i>3.31</i>	0 <i>0.00</i>	0	23 <i>2.65</i>	
Pyloric stenosis	21 <i>12.10</i>	0 <i>0.00</i>	4 <i>26.37</i>	23 <i>3.81</i>	0 <i>0.00</i>	0	48 <i>5.52</i>	
Rectal and large intestinal atresia / stenosis	7 <i>4.03</i>	2 <i>7.13</i>	1 <i>6.59</i>	25 <i>4.14</i>	0 <i>0.00</i>	1	36 <i>4.14</i>	
Reduction deformity, lower limbs	1 <i>0.58</i>	1 <i>3.57</i>	0 <i>0.00</i>	13 <i>2.15</i>	0 <i>0.00</i>	0	15 <i>1.73</i>	
Reduction deformity, upper limbs	2 <i>1.15</i>	1 <i>3.57</i>	0 <i>0.00</i>	22 <i>3.64</i>	0 <i>0.00</i>	0	25 <i>2.88</i>	
Renal agenesis / hypoplasia	5 <i>2.88</i>	3 <i>10.70</i>	0 <i>0.00</i>	22 <i>3.64</i>	0 <i>0.00</i>	3	33 <i>3.80</i>	
Spina bifida without anencephalus	9 <i>5.19</i>	0 <i>0.00</i>	2 <i>13.18</i>	17 <i>2.82</i>	0 <i>0.00</i>	3	31 <i>3.57</i>	+
Tetralogy of Fallot	3 <i>1.73</i>	1 <i>3.57</i>	0 <i>0.00</i>	21 <i>3.48</i>	0 <i>0.00</i>	0	25 <i>2.88</i>	
Transposition of great arteries	9 <i>5.19</i>	0 <i>0.00</i>	0 <i>0.00</i>	32 <i>5.30</i>	1 <i>10.21</i>	1	43 <i>4.95</i>	
Tricuspid valve atresia and stenosis	2 <i>1.15</i>	0 <i>0.00</i>	0 <i>0.00</i>	16 <i>2.65</i>	0 <i>0.00</i>	0	18 <i>2.07</i>	
Trisomy 13 (Patau syndrome)	5 <i>2.88</i>	0 <i>0.00</i>	1 <i>6.59</i>	8 <i>1.32</i>	0 <i>0.00</i>	1	15 <i>1.73</i>	
Trisomy 18 (Edwards syndrome)	11 <i>6.34</i>	0 <i>0.00</i>	1 <i>6.59</i>	14 <i>2.32</i>	1 <i>10.21</i>	6	33 <i>3.80</i>	
Ventricular septal defect	71 <i>40.91</i>	6 <i>21.40</i>	7 <i>46.14</i>	260 <i>43.06</i>	3 <i>30.64</i>	4	351 <i>40.38</i>	
Total Live Births	17,355	2,804	1,517	60,379	979		86,931	

Hawaii

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	53	70	123
	7.30	48.75	14.15
Trisomy 13 (Patau syndrome)	5	9	15
	0.69	6.27	1.73
Trisomy 18 (Edwards syndrome)	15	18	33
	2.07	12.54	3.80
Total Live Births	72,563	14,359	86,931

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: includes stillbirths/terminations
2. 1998-2002, Spina bifida without anencephalus: includes stillbirths/terminations

Illinois

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	82 1.60	26 1.55	45 2.33	5 1.30	1 8.69	0	159 1.74	+
Aniridia	0 0.00	1 0.06	0 0.00	0 0.00	0 0.00	0	1 0.01	
Anophthalmia / microphthalmia	55 1.07	6 0.36	16 0.83	0 0.00	0 0.00	2	79 0.86	
Anotia / microtia	22 0.43	3 0.18	16 0.83	3 0.78	0 0.00	0	44 0.48	
Aortic valve stenosis	56 1.09	5 0.30	8 0.41	0 0.00	0 0.00	1	70 0.77	
Atrial septal defect	1,257 24.57	422 25.14	393 20.37	71 18.46	4 34.75	30	2,177 23.82	
Biliary atresia	11 0.21	8 0.48	4 0.21	1 0.26	0 0.00	5	29 0.32	
Bladder exstrophy	21 0.41	3 0.18	1 0.05	0 0.00	0 0.00	0	25 0.27	
Choanal atresia	58 1.13	10 0.60	19 0.99	5 1.30	1 8.69	0	93 1.02	
Cleft lip with and without cleft palate	344 6.72	74 4.41	120 6.22	18 4.68	2 17.38	0	558 6.10	
Cleft palate without cleft lip	235 4.59	45 2.68	58 3.01	9 2.34	0 0.00	4	351 3.84	
Coarctation of aorta	128 2.50	23 1.37	37 1.92	7 1.82	0 0.00	0	195 2.13	
Common truncus	22 0.43	15 0.89	6 0.31	2 0.52	0 0.00	0	45 0.49	
Congenital cataract	33 0.64	9 0.54	7 0.36	0 0.00	0 0.00	0	49 0.54	
Congenital hip dislocation	112 2.19	15 0.89	40 2.07	4 1.04	0 0.00	1	172 1.88	
Diaphragmatic hernia	149 2.91	37 2.20	56 2.90	10 2.60	0 0.00	0	252 2.76	
Down syndrome (trisomy 21)	605 11.82	164 9.77	231 11.98	40 10.40	1 8.69	14	1,055 11.54	
Ebstein's anomaly	31 0.61	2 0.12	11 0.57	0 0.00	0 0.00	0	44 0.48	
Encephalocele	32 0.63	14 0.83	12 0.62	2 0.52	0 0.00	1	61 0.67	
Endocardial cushion defect	129 2.52	38 2.26	28 1.45	7 1.82	0 0.00	0	202 2.21	
Esophageal atresia / tracheoesophageal fistula	136 2.66	33 1.97	25 1.30	10 2.60	0 0.00	0	204 2.23	
Fetus or newborn affected by maternal alcohol use	62 1.21	87 5.18	8 0.41	2 0.52	0 0.00	0	159 1.74	
Hirschsprung's disease (congenital megacolon)	76 1.49	62 3.69	23 1.19	4 1.04	0 0.00	3	168 1.84	
Hydrocephalus without Spina Bifida	263 5.14	190 11.32	103 5.34	15 3.90	3 26.06	4	578 6.32	

Illinois

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	89 <i>1.74</i>	23 <i>1.37</i>	31 <i>1.61</i>	6 <i>1.56</i>	0 <i>0.00</i>	2	151 <i>1.65</i>	
Hypospadias and Epispadias	732 <i>14.31</i>	159 <i>9.47</i>	107 <i>5.55</i>	22 <i>5.72</i>	2 <i>17.38</i>	0	1,022 <i>11.18</i>	
Lung agenesis / hypoplasia	181 <i>3.54</i>	60 <i>3.57</i>	44 <i>2.28</i>	7 <i>1.82</i>	1 <i>8.69</i>	4	297 <i>3.25</i>	
Microcephalus	122 <i>2.38</i>	142 <i>8.46</i>	62 <i>3.21</i>	6 <i>1.56</i>	0 <i>0.00</i>	10	342 <i>3.74</i>	
Obstructive genitourinary defect	693 <i>13.54</i>	141 <i>8.40</i>	201 <i>10.42</i>	50 <i>13.00</i>	3 <i>26.06</i>	3	1,091 <i>11.94</i>	
Patent ductus arteriosus	1,217 <i>23.78</i>	286 <i>17.04</i>	321 <i>16.64</i>	77 <i>20.02</i>	2 <i>17.38</i>	6	1,909 <i>20.88</i>	+
Pulmonary artery anomalies	642 <i>12.55</i>	245 <i>14.60</i>	157 <i>8.14</i>	33 <i>8.58</i>	3 <i>26.06</i>	14	1,094 <i>11.97</i>	
Pulmonary valve atresia and stenosis	175 <i>3.42</i>	52 <i>3.10</i>	48 <i>2.49</i>	15 <i>3.90</i>	0 <i>0.00</i>	6	296 <i>3.24</i>	
Pyloric stenosis	58 <i>1.13</i>	42 <i>2.50</i>	60 <i>3.11</i>	4 <i>1.04</i>	0 <i>0.00</i>	15	179 <i>1.96</i>	
Rectal and large intestinal atresia / stenosis	168 <i>3.28</i>	53 <i>3.16</i>	48 <i>2.49</i>	11 <i>2.86</i>	0 <i>0.00</i>	5	285 <i>3.12</i>	
Reduction deformity, lower limbs	42 <i>0.82</i>	21 <i>1.25</i>	7 <i>0.36</i>	3 <i>0.78</i>	0 <i>0.00</i>	0	73 <i>0.80</i>	
Reduction deformity, upper limbs	72 <i>1.41</i>	33 <i>1.97</i>	30 <i>1.56</i>	5 <i>1.30</i>	2 <i>17.38</i>	2	144 <i>1.58</i>	
Renal agenesis / hypoplasia	120 <i>2.35</i>	27 <i>1.61</i>	30 <i>1.56</i>	5 <i>1.30</i>	0 <i>0.00</i>	2	184 <i>2.01</i>	
Spina bifida without anencephalus	146 <i>2.85</i>	45 <i>2.68</i>	69 <i>3.58</i>	7 <i>1.82</i>	0 <i>0.00</i>	4	271 <i>2.96</i>	+
Tetralogy of Fallot	147 <i>2.87</i>	64 <i>3.81</i>	27 <i>1.40</i>	8 <i>2.08</i>	1 <i>8.69</i>	7	254 <i>2.78</i>	
Transposition of great arteries	150 <i>2.93</i>	40 <i>2.38</i>	42 <i>2.18</i>	6 <i>1.56</i>	0 <i>0.00</i>	2	240 <i>2.63</i>	
Tricuspid valve atresia and stenosis	22 <i>0.43</i>	8 <i>0.48</i>	9 <i>0.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	39 <i>0.43</i>	
Trisomy 13 (Patau syndrome)	53 <i>1.04</i>	16 <i>0.95</i>	8 <i>0.41</i>	2 <i>0.52</i>	1 <i>8.69</i>	0	80 <i>0.88</i>	
Trisomy 18 (Edwards syndrome)	122 <i>2.38</i>	39 <i>2.32</i>	34 <i>1.76</i>	6 <i>1.56</i>	2 <i>17.38</i>	1	204 <i>2.23</i>	
Ventricular septal defect	1,149 <i>22.45</i>	337 <i>20.08</i>	405 <i>21.00</i>	78 <i>20.28</i>	6 <i>52.13</i>	35	2,010 <i>21.99</i>	+
Total Live Births	511,697	167,846	192,893	38,454	1,151		914,110	

Illinois

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	504	427	1,055
	6.41	33.30	11.54
Trisomy 13 (Patau syndrome)	51	21	80
	0.65	1.64	0.88
Trisomy 18 (Edwards syndrome)	91	82	204
	1.16	6.40	2.23
Total Live Births	785,829	128,219	914,110

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: includes fetal deaths >20 weeks, or if death certificate issued; does not include terminations
2. 1998-2002, Patent ductus arteriosus: only birth weight \geq 2500 grams
3. 1998-2002, Spina bifida without anencephalus: includes fetal deaths >20 weeks, or if death certificate issued; does not include terminations
4. 1998-2002, Ventricular septal defect: includes probable cases
5. From 1998-2001, ICD-9 codes were used to define the birth defect groups. From 2002 onwards, BPA coding was used.
6. Illinois used primarily passive newborn reporting during 1997-2001. However, a number of projects were undertaken to enhance case identification during this time period:
 - a) In each year except 1998, some active case finding was undertaken. APORS staff reviewed hospital charts to identify children with major birth defects. The targeted hospitals and conditions varied from year to year. Birth defects identified through these projects may not have been diagnosed during the newborn period.
 - b) In 2000 and 2001, APORS staff matched records with birth certificate information. Facilities were asked to provide birth defect information about very low birth weight children previously unreported to APORS.
 - c) In 2000 and 2001, APORS staff matched some hospital discharge records with APORS records to obtain more complete case ascertainment. The facilities that provided most of the hospital discharge records were Level III facilities.
 - d) In 2000, APORS staff undertook a re-abstraction study. For a sample of reported cases, hospital charts were reviewed to determine the accuracy of hospital reporting.
7. In 2002, there was a major change in data collection methods. Illinois began active verification of the newborn reports received from facilities. Abstractors review each of the charts of live-born children believed likely to have a birth defect, markedly increasing the number of birth defects identified.
8. Probable/possible diagnoses are included in Illinois cases prior to 2002. From 2002 onwards, possible diagnoses are not included.
9. The data include fetal deaths >20 weeks, or if death certificate issued. It does not include terminations.

Iowa

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	26 <i>1.57</i>	1 <i>1.73</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	28 <i>1.49</i>	
Anencephalus	41 <i>2.48</i>	3 <i>5.18</i>	5 <i>4.30</i>	1 <i>2.43</i>	0 <i>0.00</i>	4	54 <i>2.87</i>	
Aniridia	1 <i>0.06</i>	1 <i>1.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	3	5 <i>0.27</i>	
Anophthalmia / microphthalmia	42 <i>2.54</i>	1 <i>1.73</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	46 <i>2.44</i>	
Anotia / microtia	80 <i>4.84</i>	4 <i>6.91</i>	8 <i>6.88</i>	1 <i>2.43</i>	0 <i>0.00</i>	1	94 <i>4.99</i>	
Aortic valve stenosis	71 <i>4.29</i>	4 <i>6.91</i>	2 <i>1.72</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	78 <i>4.14</i>	
Atrial septal defect	427 <i>25.81</i>	23 <i>39.71</i>	14 <i>12.04</i>	12 <i>29.20</i>	2 <i>21.10</i>	14	492 <i>26.14</i>	
Biliary atresia	11 <i>0.66</i>	0 <i>0.00</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.64</i>	
Bladder exstrophy	8 <i>0.48</i>	1 <i>1.73</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>0.53</i>	
Choanal atresia	45 <i>2.72</i>	2 <i>3.45</i>	0 <i>0.00</i>	1 <i>2.43</i>	0 <i>0.00</i>	2	50 <i>2.66</i>	
Cleft lip with and without cleft palate	209 <i>12.63</i>	5 <i>8.63</i>	13 <i>11.18</i>	4 <i>9.73</i>	1 <i>10.55</i>	9	241 <i>12.80</i>	
Cleft palate without cleft lip	121 <i>7.31</i>	5 <i>8.63</i>	3 <i>2.58</i>	2 <i>4.87</i>	0 <i>0.00</i>	9	140 <i>7.44</i>	
Coarctation of aorta	110 <i>6.65</i>	5 <i>8.63</i>	2 <i>1.72</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	123 <i>6.53</i>	
Common truncus	23 <i>1.39</i>	0 <i>0.00</i>	2 <i>1.72</i>	2 <i>4.87</i>	0 <i>0.00</i>	1	28 <i>1.49</i>	
Congenital cataract	43 <i>2.60</i>	4 <i>6.91</i>	2 <i>1.72</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	50 <i>2.66</i>	
Congenital hip dislocation	152 <i>9.19</i>	2 <i>3.45</i>	14 <i>12.04</i>	0 <i>0.00</i>	1 <i>10.55</i>	9	178 <i>9.46</i>	
Diaphragmatic hernia	32 <i>1.93</i>	1 <i>1.73</i>	0 <i>0.00</i>	1 <i>2.43</i>	1 <i>10.55</i>	1	36 <i>1.91</i>	
Down syndrome (trisomy 21)	234 <i>14.14</i>	8 <i>13.81</i>	14 <i>12.04</i>	3 <i>7.30</i>	0 <i>0.00</i>	13	272 <i>14.45</i>	
Ebstein's anomaly	17 <i>1.03</i>	0 <i>0.00</i>	1 <i>0.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	18 <i>0.96</i>	
Encephalocele	13 <i>0.79</i>	2 <i>3.45</i>	3 <i>2.58</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	20 <i>1.06</i>	
Endocardial cushion defect	88 <i>5.32</i>	6 <i>10.36</i>	1 <i>0.86</i>	5 <i>12.17</i>	0 <i>0.00</i>	4	104 <i>5.53</i>	
Esophageal atresia / tracheoesophageal fistula	49 <i>2.96</i>	0 <i>0.00</i>	1 <i>0.86</i>	1 <i>2.43</i>	0 <i>0.00</i>	1	52 <i>2.76</i>	
Fetus or newborn affected by maternal alcohol use	6 <i>0.36</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>10.55</i>	2	9 <i>0.48</i>	

Iowa

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Gastroschisis	68 4.11	5 8.63	5 4.30	3 7.30	1 10.55	2	84 4.46	
Hirschsprung's disease (congenital megacolon)	44 2.66	2 3.45	0 0.00	2 4.87	0 0.00	3	51 2.71	
Hydrocephalus without Spina Bifida	172 10.40	3 5.18	11 9.46	7 17.03	0 0.00	8	201 10.68	
Hypoplastic left heart syndrome	59 3.57	4 6.91	0 0.00	0 0.00	0 0.00	0	63 3.35	
Hypospadias and Epispadias	562 33.97	14 24.17	20 17.20	7 17.03	1 10.55	15	619 32.89	
Microcephalus	130 7.86	13 22.44	10 8.60	2 4.87	2 21.10	9	166 8.82	
Obstructive genitourinary defect	433 26.17	15 25.90	21 18.06	6 14.60	1 10.55	21	497 26.40	
Omphalocele	41 2.48	0 0.00	3 2.58	2 4.87	1 10.55	3	50 2.66	
Patent ductus arteriosus	482 29.13	29 50.07	27 23.23	6 14.60	2 21.10	5	551 29.27	
Pulmonary valve atresia and stenosis	199 12.03	9 15.54	11 9.46	6 14.60	0 0.00	9	234 12.43	
Pyloric stenosis	552 33.36	6 10.36	34 29.25	1 2.43	2 21.10	33	628 33.36	
Rectal and large intestinal atresia / stenosis	73 4.41	3 5.18	4 3.44	0 0.00	0 0.00	3	83 4.41	
Reduction deformity, lower limbs	51 3.08	5 8.63	1 0.86	0 0.00	0 0.00	2	59 3.13	
Reduction deformity, upper limbs	97 5.86	3 5.18	1 0.86	2 4.87	0 0.00	3	106 5.63	
Renal agenesis / hypoplasia	102 6.17	3 5.18	5 4.30	1 2.43	0 0.00	5	116 6.16	
Spina bifida without anencephalus	93 5.62	1 1.73	8 6.88	2 4.87	1 10.55	2	107 5.68	
Tetralogy of Fallot	55 3.32	3 5.18	0 0.00	2 4.87	0 0.00	1	61 3.24	
Transposition of great arteries	93 5.62	4 6.91	6 5.16	3 7.30	0 0.00	3	109 5.79	
Tricuspid valve atresia and stenosis	13 0.79	0 0.00	4 3.44	2 4.87	0 0.00	1	20 1.06	
Trisomy 13 (Patau syndrome)	22 1.33	0 0.00	2 1.72	0 0.00	1 10.55	1	26 1.38	
Trisomy 18 (Edwards syndrome)	33 1.99	2 3.45	6 5.16	3 7.30	0 0.00	5	49 2.60	
Ventricular septal defect	722 43.64	37 63.88	49 42.15	14 34.06	1 10.55	22	845 44.89	
Total Live Births	165,449	5,792	11,625	4,110	948		188,226	

Iowa

Trisomy Counts and Rates by Maternal Age 1998-2002*(Rates per 10,000 Live Births)*

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	166	106	272
	9.88	52.33	14.45
Trisomy 13 (Patau syndrome)	16	10	26
	0.95	4.94	1.38
Trisomy 18 (Edwards syndrome)	29	20	49
	1.73	9.87	2.60
Total Live Births	167,950	20,258	188,226

(**) Total includes unknown age

Kentucky

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	28 1.17	7 2.82	0 0.00	0 0.00	0 0.00	0	35 1.28	
Anencephalus	70 2.94	6 2.42	2 3.42	0 0.00	0 0.00	1	79 2.88	
Aniridia	6 0.25	3 1.21	0 0.00	0 0.00	0 0.00	0	9 0.33	
Anophthalmia / microphthalmia	11 0.46	4 1.61	0 0.00	1 3.37	0 0.00	0	16 0.58	
Anotia / microtia	324 13.59	14 5.64	10 17.10	4 13.50	0 0.00	1	353 12.87	
Aortic valve stenosis	75 3.15	5 2.01	0 0.00	0 0.00	0 0.00	0	80 2.92	
Atrial septal defect	1,618 67.85	369 148.71	32 54.72	22 74.22	3 68.65	16	2,060 75.10	
Biliary atresia	15 0.63	4 1.61	0 0.00	0 0.00	0 0.00	0	19 0.69	
Bladder exstrophy	13 0.55	1 0.40	0 0.00	1 3.37	0 0.00	1	16 0.58	
Choanal atresia	43 1.80	3 1.21	0 0.00	0 0.00	0 0.00	0	46 1.68	
Cleft lip with and without cleft palate	255 10.69	12 4.84	4 6.84	5 16.87	0 0.00	1	277 10.10	
Cleft palate without cleft lip	199 8.35	9 3.63	2 3.42	3 10.12	1 22.88	0	214 7.80	
Coarctation of aorta	147 6.16	14 5.64	6 10.26	1 3.37	0 0.00	0	168 6.12	
Common truncus	14 0.59	3 1.21	2 3.42	0 0.00	0 0.00	0	19 0.69	
Congenital cataract	29 1.22	5 2.01	1 1.71	0 0.00	0 0.00	0	35 1.28	
Congenital hip dislocation	272 11.41	12 4.84	3 5.13	5 16.87	1 22.88	0	293 10.68	
Diaphragmatic hernia	88 3.69	4 1.61	1 1.71	2 6.75	0 0.00	1	96 3.50	
Down syndrome (trisomy 21)	276 11.57	24 9.67	10 17.10	1 3.37	0 0.00	0	311 11.34	
Ebstein's anomaly	18 0.75	1 0.40	0 0.00	0 0.00	0 0.00	0	19 0.69	
Encephalocele	10 0.42	2 0.81	2 3.42	0 0.00	0 0.00	0	14 0.51	
Endocardial cushion defect	101 4.24	11 4.43	0 0.00	1 3.37	0 0.00	1	114 4.16	
Esophageal atresia / tracheoesophageal fistula	82 3.44	8 3.22	0 0.00	1 3.37	0 0.00	0	91 3.32	
Fetus or newborn affected by maternal alcohol use	21 0.88	11 4.43	0 0.00	0 0.00	0 0.00	2	34 1.24	
Gastroschisis	110 4.61	9 3.63	6 10.26	2 6.75	0 0.00	0	127 4.63	+

Kentucky

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	61 2.56	10 4.03	0 0.00	1 3.37	0 0.00	0	72 2.62	
Hydrocephalus without Spina Bifida	209 8.76	35 14.10	2 3.42	1 3.37	0 0.00	0	247 9.00	
Hypoplastic left heart syndrome	74 3.10	7 2.82	0 0.00	0 0.00	1 22.88	0	82 2.99	
Hypospadias and Epispadias	898 37.66	91 36.67	11 18.81	2 6.75	2 45.77	3	1,007 36.71	
Microcephalus	193 8.09	23 9.27	7 11.97	3 10.12	0 0.00	1	227 8.28	
Obstructive genitourinary defect	442 18.54	34 13.70	11 18.81	9 30.36	0 0.00	0	496 18.08	
Omphalocele	45 1.89	8 3.22	0 0.00	4 13.50	0 0.00	1	58 2.11	+
Patent ductus arteriosus	1,187 49.78	235 94.70	19 32.49	17 57.35	2 45.77	2	1,462 53.30	+
Pulmonary valve atresia and stenosis	259 10.86	30 12.09	0 0.00	1 3.37	0 0.00	0	290 10.57	
Pyloric stenosis	681 28.56	29 11.69	4 6.84	1 3.37	0 0.00	2	717 26.14	
Rectal and large intestinal atresia / stenosis	139 5.83	11 4.43	4 6.84	1 3.37	0 0.00	1	156 5.69	
Reduction deformity, lower limbs	54 2.26	8 3.22	0 0.00	2 6.75	0 0.00	0	64 2.33	
Reduction deformity, upper limbs	90 3.77	12 4.84	1 1.71	0 0.00	0 0.00	0	103 3.76	
Renal agenesis / hypoplasia	69 2.89	6 2.42	1 1.71	1 3.37	0 0.00	0	77 2.81	
Spina bifida without anencephalus	82 3.44	3 1.21	2 3.42	0 0.00	0 0.00	2	89 3.24	
Tetralogy of Fallot	102 4.28	14 5.64	0 0.00	0 0.00	0 0.00	2	118 4.30	
Transposition of great arteries	123 5.16	9 3.63	2 3.42	0 0.00	0 0.00	1	135 4.92	
Tricuspid valve atresia and stenosis	20 0.84	4 1.61	1 1.71	0 0.00	1 22.88	3	29 1.06	
Trisomy 13 (Patau syndrome)	30 1.26	2 0.81	0 0.00	1 3.37	0 0.00	0	33 1.20	
Trisomy 18 (Edwards syndrome)	73 3.06	9 3.63	3 5.13	0 0.00	0 0.00	1	86 3.14	
Ventricular septal defect	1,176 49.32	145 58.43	45 76.95	11 37.11	1 22.88	5	1,383 50.42	
Total Live Births	238,451	24,814	5,848	2,964	437		274,300	

Kentucky

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	190	121	311
	7.60	50.09	11.34
Trisomy 13 (Patau syndrome)	25	7	33
	1.00	2.90	1.20
Trisomy 18 (Edwards syndrome)	63	23	86
	2.52	9.52	3.14
Total Live Births	250,027	24,156	274,300

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Gastroschisis: 756.72
2. 1998-2002, Omphalocele: 756.73
3. 1998-2002, Patent ductus arteriosus, ≥ 2500 grams
4. Births covered include live births and stillbirths (20 weeks gestation or greater).
5. Heart defects include probable diagnoses.
6. Unknown race category includes unknowns for Hispanic origin or an unknown race.

Maryland

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	52 <i>2.64</i>	29 <i>2.84</i>				15	96 <i>2.81</i>	
Cleft lip with and without cleft palate	204 <i>10.34</i>	66 <i>6.47</i>				37	307 <i>8.98</i>	
Cleft palate without cleft lip	124 <i>6.29</i>	30 <i>2.94</i>				21	175 <i>5.12</i>	
Congenital hip dislocation	80 <i>4.06</i>	11 <i>1.08</i>				14	105 <i>3.07</i>	
Down syndrome (trisomy 21)	267 <i>13.54</i>	95 <i>9.31</i>				50	412 <i>12.05</i>	
Esophageal atresia / tracheoesophageal fistula	35 <i>1.77</i>	18 <i>1.76</i>				9	62 <i>1.81</i>	
Hydrocephalus without Spina Bifida	82 <i>4.16</i>	52 <i>5.10</i>				15	149 <i>4.36</i>	
Hypospadias and Epispadias	544 <i>27.58</i>	192 <i>18.82</i>				46	782 <i>22.86</i>	
Rectal and large intestinal atresia / stenosis	61 <i>3.09</i>	22 <i>2.16</i>				9	92 <i>2.69</i>	
Reduction deformity, lower limbs	52 <i>2.64</i>	36 <i>3.53</i>				3	91 <i>2.66</i>	
Reduction deformity, upper limbs	82 <i>4.16</i>	33 <i>3.23</i>				11	126 <i>3.68</i>	
Spina bifida without anencephalus	89 <i>4.51</i>	24 <i>2.35</i>				13	126 <i>3.68</i>	
Total Live Births	197,213	102,024					342,010	

Maryland

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	221 <i>7.80</i>	191 <i>32.66</i>	412 <i>12.05</i>
Total Live Births	283,467	58,488	342,010

(**) Total includes unknown age

Massachusetts

Birth Defects Counts and Rates 1999-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	11 <i>0.46</i>	3 <i>1.28</i>	1 <i>0.27</i>	1 <i>0.53</i>	0 <i>0.00</i>	1	17 <i>0.52</i>	
Anencephalus	12 <i>0.50</i>	2 <i>0.85</i>	2 <i>0.54</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	18 <i>0.56</i>	
Aniridia	10 <i>0.42</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>0.31</i>	
Anophthalmia / microphthalmia	18 <i>0.76</i>	2 <i>0.85</i>	3 <i>0.81</i>	4 <i>2.12</i>	0 <i>0.00</i>	2	29 <i>0.89</i>	
Anotia / microtia	23 <i>0.97</i>	0 <i>0.00</i>	8 <i>2.16</i>	3 <i>1.59</i>	0 <i>0.00</i>	2	36 <i>1.11</i>	
Aortic valve stenosis	30 <i>1.26</i>	4 <i>1.71</i>	6 <i>1.62</i>	1 <i>0.53</i>	0 <i>0.00</i>	0	41 <i>1.27</i>	
Atrial septal defect	374 <i>15.73</i>	53 <i>22.64</i>	70 <i>18.91</i>	29 <i>15.35</i>	0 <i>0.00</i>	17	543 <i>16.75</i>	
Biliary atresia	10 <i>0.42</i>	3 <i>1.28</i>	3 <i>0.81</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	16 <i>0.49</i>	
Bladder exstrophy	10 <i>0.42</i>	1 <i>0.43</i>	1 <i>0.27</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.37</i>	
Choanal atresia	10 <i>0.42</i>	0 <i>0.00</i>	1 <i>0.27</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>0.34</i>	
Cleft lip with and without cleft palate	172 <i>7.24</i>	12 <i>5.13</i>	39 <i>10.54</i>	19 <i>10.06</i>	0 <i>0.00</i>	8	250 <i>7.71</i>	
Cleft palate without cleft lip	141 <i>5.93</i>	6 <i>2.56</i>	26 <i>7.02</i>	11 <i>5.82</i>	1 <i>17.99</i>	6	191 <i>5.89</i>	
Coarctation of aorta	90 <i>3.79</i>	12 <i>5.13</i>	12 <i>3.24</i>	3 <i>1.59</i>	0 <i>0.00</i>	7	124 <i>3.83</i>	
Common truncus	9 <i>0.38</i>	1 <i>0.43</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>0.31</i>	
Congenital cataract	25 <i>1.05</i>	3 <i>1.28</i>	5 <i>1.35</i>	2 <i>1.06</i>	0 <i>0.00</i>	0	35 <i>1.08</i>	
Diaphragmatic hernia	51 <i>2.15</i>	5 <i>2.14</i>	7 <i>1.89</i>	2 <i>1.06</i>	0 <i>0.00</i>	1	66 <i>2.04</i>	
Down syndrome (trisomy 21)	261 <i>10.98</i>	31 <i>13.24</i>	44 <i>11.89</i>	5 <i>2.65</i>	1 <i>17.99</i>	13	355 <i>10.95</i>	
Ebstein's anomaly	8 <i>0.34</i>	1 <i>0.43</i>	4 <i>1.08</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	14 <i>0.43</i>	
Encephalocele	10 <i>0.42</i>	3 <i>1.28</i>	1 <i>0.27</i>	1 <i>0.53</i>	0 <i>0.00</i>	1	16 <i>0.49</i>	
Endocardial cushion defect	83 <i>3.49</i>	18 <i>7.69</i>	11 <i>2.97</i>	2 <i>1.06</i>	0 <i>0.00</i>	4	118 <i>3.64</i>	
Esophageal atresia / tracheoesophageal fistula	62 <i>2.61</i>	4 <i>1.71</i>	9 <i>2.43</i>	4 <i>2.12</i>	0 <i>0.00</i>	4	83 <i>2.56</i>	
Gastroschisis	46 <i>1.94</i>	2 <i>0.85</i>	15 <i>4.05</i>	4 <i>2.12</i>	0 <i>0.00</i>	1	68 <i>2.10</i>	
Hirschsprung's disease (congenital megacolon)	32 <i>1.35</i>	4 <i>1.71</i>	8 <i>2.16</i>	2 <i>1.06</i>	0 <i>0.00</i>	2	48 <i>1.48</i>	
Hydrocephalus without Spina Bifida	61 <i>2.57</i>	11 <i>4.70</i>	16 <i>4.32</i>	6 <i>3.18</i>	2 <i>35.97</i>	3	99 <i>3.05</i>	

Massachusetts

Birth Defects Counts and Rates 1999-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	30 <i>1.26</i>	7 <i>2.99</i>	6 <i>1.62</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	45 <i>1.39</i>	
Hypospadias and Epispadias	201 <i>8.46</i>	22 <i>9.40</i>	29 <i>7.83</i>	16 <i>8.47</i>	0 <i>0.00</i>	4	272 <i>8.39</i>	
Microcephalus	48 <i>2.02</i>	7 <i>2.99</i>	17 <i>4.59</i>	4 <i>2.12</i>	0 <i>0.00</i>	1	77 <i>2.38</i>	
Obstructive genitourinary defect	179 <i>7.53</i>	18 <i>7.69</i>	31 <i>8.37</i>	8 <i>4.24</i>	0 <i>0.00</i>	4	240 <i>7.41</i>	
Omphalocele	32 <i>1.35</i>	8 <i>3.42</i>	7 <i>1.89</i>	2 <i>1.06</i>	0 <i>0.00</i>	1	50 <i>1.54</i>	
Patent ductus arteriosus	351 <i>14.77</i>	52 <i>22.21</i>	52 <i>14.05</i>	24 <i>12.71</i>	0 <i>0.00</i>	14	493 <i>15.21</i>	
Pulmonary valve atresia and stenosis	120 <i>5.05</i>	18 <i>7.69</i>	20 <i>5.40</i>	6 <i>3.18</i>	0 <i>0.00</i>	8	172 <i>5.31</i>	
Rectal and large intestinal atresia / stenosis	81 <i>3.41</i>	9 <i>3.84</i>	17 <i>4.59</i>	4 <i>2.12</i>	0 <i>0.00</i>	4	115 <i>3.55</i>	
Reduction deformity, lower limbs	27 <i>1.14</i>	4 <i>1.71</i>	8 <i>2.16</i>	1 <i>0.53</i>	0 <i>0.00</i>	4	44 <i>1.36</i>	
Reduction deformity, upper limbs	61 <i>2.57</i>	7 <i>2.99</i>	12 <i>3.24</i>	4 <i>2.12</i>	0 <i>0.00</i>	4	88 <i>2.72</i>	
Renal agenesis / hypoplasia	5 <i>0.21</i>	2 <i>0.85</i>	2 <i>0.54</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	10 <i>0.31</i>	
Spina bifida without anencephalus	38 <i>1.60</i>	5 <i>2.14</i>	7 <i>1.89</i>	4 <i>2.12</i>	0 <i>0.00</i>	1	55 <i>1.70</i>	
Tetralogy of Fallot	96 <i>4.04</i>	11 <i>4.70</i>	20 <i>5.40</i>	10 <i>5.29</i>	0 <i>0.00</i>	2	139 <i>4.29</i>	
Transposition of great arteries	76 <i>3.20</i>	7 <i>2.99</i>	9 <i>2.43</i>	6 <i>3.18</i>	0 <i>0.00</i>	4	102 <i>3.15</i>	
Tricuspid valve atresia and stenosis	16 <i>0.67</i>	3 <i>1.28</i>	4 <i>1.08</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	24 <i>0.74</i>	
Trisomy 13 (Patau syndrome)	11 <i>0.46</i>	1 <i>0.43</i>	2 <i>0.54</i>	1 <i>0.53</i>	0 <i>0.00</i>	1	16 <i>0.49</i>	
Trisomy 18 (Edwards syndrome)	30 <i>1.26</i>	5 <i>2.14</i>	4 <i>1.08</i>	2 <i>1.06</i>	0 <i>0.00</i>	1	42 <i>1.30</i>	
Ventricular septal defect	348 <i>14.64</i>	44 <i>18.80</i>	69 <i>18.64</i>	23 <i>12.18</i>	1 <i>17.99</i>	14	499 <i>15.40</i>	
Total Live Births	237,704	23,409	37,015	18,889	556		324,086	

Massachusetts

Trisomy Counts and Rates by Maternal Age 1999-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	151	204	355
	5.96	28.86	10.95
Trisomy 13 (Patau syndrome)	7	9	16
	0.28	1.27	0.49
Trisomy 18 (Edwards syndrome)	22	20	42
	0.87	2.83	1.30
Total Live Births	253,398	70,681	324,086

(**) Total includes unknown age

Michigan

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	48 0.98	5 0.42	2 0.60	2 1.09	0 0.00	13	70 1.05	
Aniridia	8 0.16	1 0.08	2 0.60	0 0.00	1 2.94	1	13 0.20	
Anophthalmia / microphthalmia	78 1.59	24 2.04	9 2.70	7 3.81	1 2.94	7	126 1.89	
Anotia / microtia	54 1.10	10 0.85	4 1.20	4 2.18	1 2.94	1	74 1.11	
Aortic valve stenosis	140 2.86	7 0.59	5 1.50	4 2.18	1 2.94	8	165 2.48	
Atrial septal defect	2,815 57.46	698 59.32	188 56.50	80 43.51	21 61.71	109	3,911 58.68	
Biliary atresia	53 1.08	22 1.87	0 0.00	1 0.54	0 0.00	1	77 1.16	
Bladder exstrophy	23 0.47	3 0.25	0 0.00	0 0.00	1 2.94	0	27 0.41	
Choanal atresia	91 1.86	15 1.27	8 2.40	2 1.09	0 0.00	2	118 1.77	
Cleft lip with and without cleft palate	547 11.17	55 4.67	34 10.22	25 13.60	4 11.75	25	690 10.35	
Cleft palate without cleft lip	263 5.37	54 4.59	15 4.51	12 6.53	2 5.88	17	363 5.45	
Coarctation of aorta	322 6.57	58 4.93	17 5.11	6 3.26	5 14.69	8	416 6.24	
Common truncus	62 1.27	12 1.02	2 0.60	0 0.00	1 2.94	7	84 1.26	
Congenital cataract	106 2.16	29 2.46	7 2.10	4 2.18	3 8.82	4	153 2.30	
Congenital hip dislocation	762 15.55	62 5.27	32 9.62	28 15.23	4 11.75	32	920 13.80	
Diaphragmatic hernia	138 2.82	35 2.97	7 2.10	8 4.35	1 2.94	12	201 3.02	
Down syndrome (trisomy 21)	594 12.13	110 9.35	40 12.02	23 12.51	1 2.94	28	796 11.94	
Ebstein's anomaly	135 2.76	10 0.85	3 0.90	3 1.63	1 2.94	9	161 2.42	
Encephalocele	34 0.69	17 1.44	4 1.20	0 0.00	0 0.00	3	58 0.87	
Endocardial cushion defect	206 4.21	36 3.06	9 2.70	5 2.72	1 2.94	15	272 4.08	
Esophageal atresia / tracheoesophageal fistula	155 3.16	30 2.55	8 2.40	2 1.09	1 2.94	5	201 3.02	
Fetus or newborn affected by maternal alcohol use	69 1.41	44 3.74	6 1.80	1 0.54	1 2.94	3	124 1.86	
Gastroschisis	109 2.23	32 2.72	7 2.10	4 2.18	0 0.00	8	160 2.40	
Hirschsprung's disease (congenital megacolon)	150 3.06	46 3.91	10 3.01	5 2.72	1 2.94	11	223 3.35	

Michigan

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hydrocephalus without Spina Bifida	412 8.41	139 11.81	21 6.31	12 6.53	1 2.94	24	609 9.14	
Hypoplastic left heart syndrome	204 4.16	29 2.46	12 3.61	8 4.35	1 2.94	26	280 4.20	
Hypospadias and Epispadias	1,544 31.52	292 24.82	53 15.93	30 16.32	9 26.45	94	2,022 30.34	
Microcephalus	348 7.10	142 12.07	24 7.21	16 8.70	4 11.75	20	554 8.31	
Obstructive genitourinary defect	937 19.13	186 15.81	86 25.85	34 18.49	3 8.82	37	1,283 19.25	
Patent ductus arteriosus	1,303 26.60	314 26.69	79 23.74	39 21.21	5 14.69	8	1,748 26.22	
Pulmonary valve atresia and stenosis	477 9.74	153 13.00	29 8.72	23 12.51	5 14.69	37	724 10.86	
Pyloric stenosis	1,040 21.23	124 10.54	68 20.44	10 5.44	9 26.45	42	1,293 19.40	
Rectal and large intestinal atresia / stenosis	234 4.78	55 4.67	17 5.11	10 5.44	0 0.00	15	331 4.97	
Reduction deformity, lower limbs	70 1.43	29 2.46	4 1.20	3 1.63	0 0.00	3	109 1.64	
Reduction deformity, upper limbs	112 2.29	33 2.80	6 1.80	4 2.18	1 2.94	6	162 2.43	
Renal agenesis / hypoplasia	280 5.72	55 4.67	19 5.71	10 5.44	1 2.94	22	387 5.81	
Spina bifida without anencephalus	204 4.16	42 3.57	13 3.91	6 3.26	3 8.82	12	280 4.20	
Tetralogy of Fallot	266 5.43	42 3.57	20 6.01	10 5.44	0 0.00	15	353 5.30	
Transposition of great arteries	249 5.08	38 3.23	18 5.41	8 4.35	1 2.94	25	339 5.09	
Tricuspid valve atresia and stenosis	72 1.47	22 1.87	9 2.70	2 1.09	0 0.00	6	111 1.67	
Trisomy 13 (Patau syndrome)	37 0.76	9 0.76	4 1.20	2 1.09	0 0.00	9	61 0.92	
Trisomy 18 (Edwards syndrome)	67 1.37	10 0.85	4 1.20	3 1.63	1 2.94	14	99 1.49	
Ventricular septal defect	1,928 39.36	308 26.18	126 37.87	82 44.60	14 41.14	109	2,567 38.51	
Total Live Births	489,887	117,661	33,272	18,386	3,403		666,550	

Michigan

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	444	329	796
	7.62	39.56	11.95
Trisomy 13 (Patau syndrome)	42	10	61
	0.72	1.20	0.92
Trisomy 18 (Edwards syndrome)	57	30	99
	0.98	3.61	1.49
Total Live Births	583,011	83,166	666,265

(**) Total includes unknown age

(+) Notes:

1. 2001-2002, Total Live Births: birth master file figures
2. 1998-2002, Total Live Births: includes Hispanics in Asian/NorthAmerican
3. 1998-2000, Total Live Births: revised to birth master file figures

Mississippi

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	5 <i>0.75</i>	6 <i>1.05</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	12 <i>0.94</i>	+
Aniridia	1 <i>0.15</i>	1 <i>0.18</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.16</i>	
Anophthalmia / microphthalmia	8 <i>1.20</i>	7 <i>1.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	15 <i>1.17</i>	
Anotia / microtia	4 <i>0.60</i>	4 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>25.77</i>	0	10 <i>0.78</i>	
Aortic valve stenosis	4 <i>0.60</i>	1 <i>0.18</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.39</i>	
Atrial septal defect	140 <i>20.92</i>	178 <i>31.28</i>	4 <i>19.37</i>	3 <i>24.86</i>	2 <i>25.77</i>	1	328 <i>25.65</i>	
Biliary atresia	4 <i>0.60</i>	7 <i>1.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>0.86</i>	
Bladder exstrophy	2 <i>0.30</i>	1 <i>0.18</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.23</i>	
Choanal atresia	3 <i>0.45</i>	4 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	7 <i>0.55</i>	
Cleft lip with and without cleft palate	52 <i>7.77</i>	46 <i>8.08</i>	0 <i>0.00</i>	1 <i>8.29</i>	1 <i>12.89</i>	0	100 <i>7.82</i>	
Cleft palate without cleft lip	39 <i>5.83</i>	23 <i>4.04</i>	2 <i>9.69</i>	0 <i>0.00</i>	1 <i>12.89</i>	0	65 <i>5.08</i>	
Coarctation of aorta	19 <i>2.84</i>	14 <i>2.46</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>12.89</i>	2	36 <i>2.82</i>	
Common truncus	6 <i>0.90</i>	3 <i>0.53</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>0.70</i>	
Congenital cataract	8 <i>1.20</i>	7 <i>1.23</i>	0 <i>0.00</i>	1 <i>8.29</i>	0 <i>0.00</i>	0	16 <i>1.25</i>	
Congenital hip dislocation	37 <i>5.53</i>	15 <i>2.64</i>	1 <i>4.84</i>	3 <i>24.86</i>	1 <i>12.89</i>	1	58 <i>4.54</i>	
Diaphragmatic hernia	9 <i>1.35</i>	19 <i>3.34</i>	1 <i>4.84</i>	0 <i>0.00</i>	1 <i>12.89</i>	1	31 <i>2.42</i>	
Down syndrome (trisomy 21)	65 <i>9.71</i>	35 <i>6.15</i>	1 <i>4.84</i>	3 <i>24.86</i>	1 <i>12.89</i>	1	106 <i>8.29</i>	
Ebstein's anomaly	2 <i>0.30</i>	2 <i>0.35</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.31</i>	
Encephalocele	8 <i>1.20</i>	5 <i>0.88</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	13 <i>1.02</i>	
Endocardial cushion defect	14 <i>2.09</i>	11 <i>1.93</i>	0 <i>0.00</i>	1 <i>8.29</i>	0 <i>0.00</i>	1	27 <i>2.11</i>	
Esophageal atresia / tracheoesophageal fistula	12 <i>1.79</i>	16 <i>2.81</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	28 <i>2.19</i>	
Fetus or newborn affected by maternal alcohol use	2 <i>0.30</i>	4 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>25.77</i>	0	8 <i>0.63</i>	
Hirschsprung's disease (congenital megacolon)	8 <i>1.20</i>	16 <i>2.81</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	25 <i>1.96</i>	
Hydrocephalus without Spina Bifida	26 <i>3.89</i>	54 <i>9.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>12.89</i>	0	82 <i>6.41</i>	

Mississippi

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	15 <i>2.24</i>	10 <i>1.76</i>	1 <i>4.84</i>	1 <i>8.29</i>	1 <i>12.89</i>	3	31 <i>2.42</i>	
Hypospadias and Epispadias	112 <i>16.74</i>	97 <i>17.05</i>	0 <i>0.00</i>	0 <i>0.00</i>	3 <i>38.66</i>	1	213 <i>16.66</i>	
Microcephalus	35 <i>5.23</i>	69 <i>12.13</i>	1 <i>4.84</i>	2 <i>16.57</i>	3 <i>38.66</i>	3	113 <i>8.84</i>	
Obstructive genitourinary defect	97 <i>14.50</i>	63 <i>11.07</i>	0 <i>0.00</i>	1 <i>8.29</i>	2 <i>25.77</i>	3	166 <i>12.98</i>	
Patent ductus arteriosus	88 <i>13.15</i>	104 <i>18.28</i>	4 <i>19.37</i>	0 <i>0.00</i>	2 <i>25.77</i>	0	198 <i>15.49</i>	+
Pulmonary valve atresia and stenosis	25 <i>3.74</i>	49 <i>8.61</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>12.89</i>	1	76 <i>5.94</i>	
Pyloric stenosis	119 <i>17.78</i>	34 <i>5.98</i>	1 <i>4.84</i>	0 <i>0.00</i>	1 <i>12.89</i>	1	156 <i>12.20</i>	
Rectal and large intestinal atresia / stenosis	14 <i>2.09</i>	14 <i>2.46</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	29 <i>2.27</i>	
Reduction deformity, lower limbs	4 <i>0.60</i>	6 <i>1.05</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	11 <i>0.86</i>	
Reduction deformity, upper limbs	11 <i>1.64</i>	12 <i>2.11</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>12.89</i>	0	24 <i>1.88</i>	
Renal agenesis / hypoplasia	18 <i>2.69</i>	22 <i>3.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	41 <i>3.21</i>	
Spina bifida without anencephalus	17 <i>2.54</i>	21 <i>3.69</i>	2 <i>9.69</i>	0 <i>0.00</i>	1 <i>12.89</i>	1	42 <i>3.28</i>	
Tetralogy of Fallot	17 <i>2.54</i>	18 <i>3.16</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	35 <i>2.74</i>	
Transposition of great arteries	27 <i>4.04</i>	19 <i>3.34</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>12.89</i>	1	48 <i>3.75</i>	
Tricuspid valve atresia and stenosis	1 <i>0.15</i>	5 <i>0.88</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.47</i>	
Trisomy 13 (Patau syndrome)	2 <i>0.30</i>	6 <i>1.05</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	8 <i>0.63</i>	
Trisomy 18 (Edwards syndrome)	5 <i>0.75</i>	11 <i>1.93</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	16 <i>1.25</i>	
Ventricular septal defect	198 <i>29.59</i>	177 <i>31.11</i>	2 <i>9.69</i>	5 <i>41.43</i>	6 <i>77.32</i>	2	390 <i>30.50</i>	+
Total Live Births	66,912	56,899	2,065	1,207	776		127,863	

Mississippi

Trisomy Counts and Rates by Maternal Age 2000-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	72	34	106
	6.08	35.83	8.29
Trisomy 13 (Patau syndrome)	7	1	8
	0.59	1.05	0.63
Trisomy 18 (Edwards syndrome)	10	6	16
	0.84	6.32	1.25
Total Live Births	118,360	9,488	127,863

(**) Total includes unknown age

(+) Notes:

1. 2000-2002, Anencephalus: live births only
2. 2000, Patent ductus arteriosus: only >2500 grams birth weights are included; birth weight not available for 39 children
3. 2001, Patent ductus arteriosus: only >2500 grams birth weights are included; birth weight not available for 60 children
4. 2002, Patent ductus arteriosus: only >2500 grams birth weights are included; birth weight not available for 190
5. 2000-2002, Ventricular septal defect: MSDH does not indicate probable causes.

Missouri

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	60 2.01	11 1.98	3 2.19	2 2.91	0 0.00	1	77 2.04	+
Aniridia	10 0.42	1 0.22	0 0.00	0 0.00	0 0.00	0	11 0.36	
Anophthalmia / microphthalmia	59 1.97	15 2.69	3 2.19	1 1.45	1 6.57	0	79 2.09	
Anotia / microtia	13 0.43	4 0.72	1 0.73	1 1.45	0 0.00	0	19 0.50	
Aortic valve stenosis	70 2.34	11 1.98	2 1.46	0 0.00	1 6.57	0	84 2.23	
Atrial septal defect	1,951 65.25	570 102.39	103 75.23	48 69.74	12 78.79	5	2,689 71.25	
Biliary atresia	27 0.90	6 1.08	1 0.73	2 2.91	0 0.00	0	36 0.95	
Bladder exstrophy	18 0.60	0 0.00	0 0.00	0 0.00	0 0.00	0	18 0.48	
Choanal atresia	74 2.47	17 3.05	3 2.19	1 1.45	0 0.00	0	95 2.52	
Cleft lip with and without cleft palate	343 11.47	26 4.67	18 13.15	9 13.08	1 6.57	0	397 10.52	
Cleft palate without cleft lip	194 6.49	31 5.57	7 5.11	0 0.00	1 6.57	1	234 6.20	
Coarctation of aorta	200 6.69	29 5.21	3 2.19	4 5.81	0 0.00	0	236 6.25	
Common truncus	34 1.14	2 0.36	1 0.73	0 0.00	0 0.00	0	37 0.98	
Congenital cataract	83 2.78	13 2.34	3 2.19	1 1.45	0 0.00	0	100 2.65	
Congenital hip dislocation	440 14.72	21 3.77	21 15.34	4 5.81	2 13.13	1	489 12.96	
Diaphragmatic hernia	132 4.41	34 6.11	7 5.11	6 8.72	0 0.00	0	179 4.74	
Down syndrome (trisomy 21)	462 15.45	68 12.22	28 20.45	11 15.98	0 0.00	2	571 15.13	
Ebstein's anomaly	29 0.97	3 0.54	1 0.73	0 0.00	0 0.00	1	34 0.90	
Encephalocele	27 0.90	1 0.18	2 1.46	1 1.45	2 13.13	0	33 0.87	
Endocardial cushion defect	161 5.38	27 4.85	5 3.65	2 2.91	1 6.57	0	196 5.19	
Esophageal atresia / tracheoesophageal fistula	92 3.08	21 3.77	6 4.38	0 0.00	0 0.00	0	119 3.15	
Fetus or newborn affected by maternal alcohol use	29 0.97	15 2.69	0 0.00	1 1.45	0 0.00	0	45 1.19	
Hirschsprung's disease (congenital megacolon)	108 3.61	20 3.59	3 2.19	2 2.91	0 0.00	0	133 3.52	
Hydrocephalus without Spina Bifida	257 8.60	73 13.11	11 8.03	4 5.81	0 0.00	5	350 9.27	

Missouri

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	101 <i>3.38</i>	29 <i>5.21</i>	3 <i>2.19</i>	1 <i>1.45</i>	0 <i>0.00</i>	0	134 <i>3.55</i>	
Hypospadias and Epispadias	1,365 <i>45.65</i>	223 <i>40.06</i>	38 <i>27.75</i>	17 <i>24.70</i>	4 <i>26.26</i>	4	1,651 <i>43.75</i>	
Microcephalus	153 <i>5.12</i>	66 <i>11.86</i>	5 <i>3.65</i>	2 <i>2.91</i>	3 <i>19.70</i>	0	229 <i>6.07</i>	
Obstructive genitourinary defect	630 <i>21.07</i>	100 <i>17.96</i>	25 <i>18.26</i>	21 <i>30.51</i>	6 <i>39.40</i>	2	784 <i>20.77</i>	
Patent ductus arteriosus	1,465 <i>49.00</i>	348 <i>62.51</i>	64 <i>46.74</i>	33 <i>47.94</i>	4 <i>26.26</i>	3	1,917 <i>50.80</i>	
Pulmonary valve atresia and stenosis	349 <i>11.67</i>	112 <i>20.12</i>	11 <i>8.03</i>	7 <i>10.17</i>	0 <i>0.00</i>	0	479 <i>12.69</i>	
Pyloric stenosis	966 <i>32.31</i>	82 <i>14.73</i>	24 <i>17.53</i>	4 <i>5.81</i>	7 <i>45.96</i>	0	1,083 <i>28.70</i>	
Rectal and large intestinal atresia / stenosis	176 <i>5.89</i>	19 <i>3.41</i>	9 <i>6.57</i>	1 <i>1.45</i>	0 <i>0.00</i>	0	205 <i>5.43</i>	
Reduction deformity, lower limbs	50 <i>1.67</i>	13 <i>2.34</i>	3 <i>2.19</i>	0 <i>0.00</i>	1 <i>6.57</i>	0	67 <i>1.78</i>	
Reduction deformity, upper limbs	74 <i>2.47</i>	15 <i>2.69</i>	4 <i>2.92</i>	3 <i>4.36</i>	1 <i>6.57</i>	0	97 <i>2.57</i>	
Renal agenesis / hypoplasia	151 <i>5.05</i>	20 <i>3.59</i>	9 <i>6.57</i>	1 <i>1.45</i>	0 <i>0.00</i>	0	181 <i>4.80</i>	
Spina bifida without anencephalus	149 <i>4.98</i>	16 <i>2.87</i>	7 <i>5.11</i>	1 <i>1.45</i>	0 <i>0.00</i>	0	173 <i>4.58</i>	+
Tetralogy of Fallot	149 <i>4.98</i>	39 <i>7.01</i>	10 <i>7.30</i>	5 <i>7.26</i>	1 <i>6.57</i>	0	204 <i>5.41</i>	
Transposition of great arteries	140 <i>4.68</i>	24 <i>4.31</i>	2 <i>1.46</i>	5 <i>7.26</i>	0 <i>0.00</i>	0	171 <i>4.53</i>	
Tricuspid valve atresia and stenosis	51 <i>1.71</i>	20 <i>3.59</i>	1 <i>0.73</i>	0 <i>0.00</i>	1 <i>6.57</i>	0	73 <i>1.93</i>	
Trisomy 13 (Patau syndrome)	32 <i>1.07</i>	11 <i>1.98</i>	0 <i>0.00</i>	1 <i>1.45</i>	1 <i>6.57</i>	0	45 <i>1.19</i>	
Trisomy 18 (Edwards syndrome)	63 <i>2.11</i>	12 <i>2.16</i>	2 <i>1.46</i>	2 <i>2.91</i>	0 <i>0.00</i>	0	79 <i>2.09</i>	
Ventricular septal defect	1,310 <i>43.81</i>	246 <i>44.19</i>	63 <i>46.01</i>	23 <i>33.42</i>	8 <i>52.53</i>	4	1,654 <i>43.83</i>	
Total Live Births	298,997	55,668	13,692	6,883	1,523		377,393	

Missouri

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	326	245	571
	9.70	59.60	15.13
Trisomy 13 (Patau syndrome)	32	13	45
	0.95	3.16	1.19
Trisomy 18 (Edwards syndrome)	55	24	79
	1.64	5.84	2.09
Total Live Births	336,238	41,108	377,393

(**) Total includes unknown age

(+) Notes:

1. 1998-2001, Anencephalus: live births and stillbirths >20 weeks
2. 2002, Anencephalus: live births only
3. 1998-2001, Spina bifida without anencephalus: live births and stillbirths >20 weeks
4. 1999-2002, Spina bifida without anencephalus: live births only

Montana

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	0 0.00	0 0.00	0 0.00	0 0.00	1 2.49	0	1 0.30	
Anencephalus	5 1.83	0 0.00	0 0.00	0 0.00	0 0.00	2	7 2.13	
Aniridia	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Anophthalmia / microphthalmia	0 0.00	0 0.00	0 0.00	1 42.92	0 0.00	0	1 0.30	
Anotia / microtia	0 0.00	0 0.00	0 0.00	0 0.00	1 2.49	0	1 0.30	
Aortic valve stenosis	2 0.73	0 0.00	0 0.00	0 0.00	0 0.00	3	5 1.52	
Atrial septal defect	33 12.08	0 0.00	0 0.00	1 42.92	6 14.91	33	73 22.16	
Biliary atresia	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Bladder exstrophy	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Choanal atresia	0 0.00	0 0.00	0 0.00	0 0.00	1 2.49	0	1 0.30	
Cleft lip with and without cleft palate	13 4.76	1 89.29	0 0.00	0 0.00	10 24.85	9	33 10.02	
Cleft palate without cleft lip	13 4.76	0 0.00	0 0.00	0 0.00	2 4.97	6	21 6.38	
Coarctation of aorta	4 1.46	0 0.00	0 0.00	0 0.00	0 0.00	0	4 1.21	
Common truncus	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1	1 0.30	
Congenital cataract	2 0.73	0 0.00	0 0.00	0 0.00	0 0.00	0	2 0.61	
Congenital hip dislocation	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Diaphragmatic hernia	2 0.73	0 0.00	0 0.00	0 0.00	0 0.00	1	3 0.91	
Down syndrome (trisomy 21)	42 15.38	0 0.00	0 0.00	0 0.00	2 4.97	25	69 20.95	
Ebstein's anomaly	5 1.83	0 0.00	0 0.00	0 0.00	0 0.00	1	6 1.82	
Encephalocele	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0	0 0.00	
Endocardial cushion defect	2 0.73	0 0.00	0 0.00	0 0.00	1 2.49	5	8 2.43	
Esophageal atresia / tracheoesophageal fistula	0 0.00	0 0.00	0 0.00	1 42.92	0 0.00	1	2 0.61	
Gastroschisis	10 3.66	0 0.00	0 0.00	0 0.00	2 4.97	2	14 4.25	+
Hirschsprung's disease (congenital megacolon)	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1	1 0.30	

Montana

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hydrocephalus without Spina Bifida	4 <i>1.46</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.00</i>	6 <i>1.82</i>	
Hypoplastic left heart syndrome	3 <i>1.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.00</i>	5 <i>1.52</i>	
Hypospadias and Epispadias	15 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>4.97</i>	2 <i>0.00</i>	19 <i>5.77</i>	
Microcephalus	18 <i>6.59</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>4.97</i>	11 <i>0.00</i>	31 <i>9.41</i>	
Obstructive genitourinary defect	7 <i>2.56</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	3 <i>0.00</i>	11 <i>3.34</i>	
Omphalocele	1 <i>0.37</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>0.30</i>	+
Patent ductus arteriosus	19 <i>6.96</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>42.92</i>	2 <i>4.97</i>	26 <i>0.00</i>	48 <i>14.57</i>	+
Pulmonary valve atresia and stenosis	9 <i>3.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	10 <i>0.00</i>	20 <i>6.07</i>	
Pyloric stenosis	2 <i>0.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	1 <i>0.00</i>	4 <i>1.21</i>	
Rectal and large intestinal atresia / stenosis	1 <i>0.37</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>0.00</i>	2 <i>0.61</i>	
Reduction deformity, lower limbs	3 <i>1.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	3 <i>0.91</i>	
Reduction deformity, upper limbs	2 <i>0.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>0.61</i>	
Renal agenesis / hypoplasia	1 <i>0.37</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>0.00</i>	2 <i>0.61</i>	
Spina bifida without anencephalus	5 <i>1.83</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	0 <i>0.00</i>	6 <i>1.82</i>	+
Tetralogy of Fallot	5 <i>1.83</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	5 <i>0.00</i>	11 <i>3.34</i>	
Transposition of great arteries	3 <i>1.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	1 <i>0.00</i>	5 <i>1.52</i>	
Tricuspid valve atresia and stenosis	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	
Trisomy 13 (Patau syndrome)	3 <i>1.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>2.49</i>	1 <i>0.00</i>	5 <i>1.52</i>	
Trisomy 18 (Edwards syndrome)	7 <i>2.56</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>0.00</i>	8 <i>2.43</i>	
Ventricular septal defect	43 <i>15.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	6 <i>14.91</i>	50 <i>0.00</i>	99 <i>30.06</i>	
Total Live Births	27,314	112	1,084	233	4,024		32,938	

Montana

Trisomy Counts and Rates by Maternal Age 2000-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	31	28	69
	10.70	71.01	20.95
Trisomy 13 (Patau syndrome)	2	3	5
	0.69	7.61	1.52
Trisomy 18 (Edwards syndrome)	4	2	8
	1.38	5.07	2.43
Total Live Births	28,983	3,943	32,938

(**) Total includes unknown age

(+) Notes:

1. 2000-2002, Gastroschisis: case confirmation of medical records
2. 2000-2002, Omphalocele: case confirmation of medical records
3. 2000-2002, Patent ductus arteriosus: >2500 grams
4. 2000-2002, Spina bifida without anencephalus: live births only
5. 2002 data are provisional.

New Jersey

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	12 <i>0.38</i>	8 <i>0.87</i>	6 <i>0.54</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	26 <i>0.45</i>	
Anencephalus	7 <i>0.22</i>	2 <i>0.22</i>	10 <i>0.90</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	19 <i>0.33</i>	
Aniridia	2 <i>0.06</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.03</i>	
Anophthalmia / microphthalmia	28 <i>0.89</i>	10 <i>1.08</i>	10 <i>0.90</i>	1 <i>0.23</i>	0 <i>0.00</i>	0	49 <i>0.85</i>	
Anotia / microtia	34 <i>1.08</i>	3 <i>0.33</i>	40 <i>3.62</i>	5 <i>1.16</i>	0 <i>0.00</i>	1	83 <i>1.45</i>	
Aortic valve stenosis	39 <i>1.24</i>	6 <i>0.65</i>	8 <i>0.72</i>	5 <i>1.16</i>	0 <i>0.00</i>	1	59 <i>1.03</i>	
Atrial septal defect	2,886 <i>91.86</i>	1,299 <i>140.81</i>	972 <i>87.94</i>	300 <i>69.67</i>	15 <i>175.64</i>	56	5,528 <i>96.45</i>	
Biliary atresia	10 <i>0.32</i>	1 <i>0.11</i>	2 <i>0.18</i>	2 <i>0.46</i>	0 <i>0.00</i>	0	15 <i>0.26</i>	
Bladder exstrophy	12 <i>0.38</i>	1 <i>0.11</i>	3 <i>0.27</i>	1 <i>0.23</i>	0 <i>0.00</i>	0	17 <i>0.30</i>	
Choanal atresia	54 <i>1.72</i>	16 <i>1.73</i>	8 <i>0.72</i>	3 <i>0.70</i>	0 <i>0.00</i>	0	81 <i>1.41</i>	
Cleft lip with and without cleft palate	241 <i>7.67</i>	49 <i>5.31</i>	97 <i>8.78</i>	39 <i>9.06</i>	0 <i>0.00</i>	7	433 <i>7.56</i>	
Cleft palate without cleft lip	188 <i>5.98</i>	50 <i>5.42</i>	43 <i>3.89</i>	21 <i>4.88</i>	0 <i>0.00</i>	3	305 <i>5.32</i>	
Coarctation of aorta	106 <i>3.37</i>	23 <i>2.49</i>	32 <i>2.90</i>	9 <i>2.09</i>	1 <i>11.71</i>	1	172 <i>3.00</i>	
Common truncus	23 <i>0.73</i>	3 <i>0.33</i>	7 <i>0.63</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	34 <i>0.59</i>	
Congenital cataract	40 <i>1.27</i>	22 <i>2.38</i>	15 <i>1.36</i>	3 <i>0.70</i>	0 <i>0.00</i>	0	80 <i>1.40</i>	
Congenital hip dislocation	315 <i>10.03</i>	34 <i>3.69</i>	103 <i>9.32</i>	33 <i>7.66</i>	0 <i>0.00</i>	2	487 <i>8.50</i>	
Diaphragmatic hernia	52 <i>1.66</i>	19 <i>2.06</i>	19 <i>1.72</i>	15 <i>3.48</i>	0 <i>0.00</i>	3	108 <i>1.88</i>	
Down syndrome (trisomy 21)	343 <i>10.92</i>	114 <i>12.36</i>	135 <i>12.21</i>	28 <i>6.50</i>	1 <i>11.71</i>	10	631 <i>11.01</i>	
Ebstein's anomaly	16 <i>0.51</i>	1 <i>0.11</i>	4 <i>0.36</i>	4 <i>0.93</i>	0 <i>0.00</i>	0	25 <i>0.44</i>	
Encephalocele	10 <i>0.32</i>	7 <i>0.76</i>	5 <i>0.45</i>	2 <i>0.46</i>	0 <i>0.00</i>	0	24 <i>0.42</i>	
Endocardial cushion defect	70 <i>2.23</i>	37 <i>4.01</i>	28 <i>2.53</i>	8 <i>1.86</i>	0 <i>0.00</i>	2	145 <i>2.53</i>	
Esophageal atresia / tracheoesophageal fistula	81 <i>2.58</i>	17 <i>1.84</i>	21 <i>1.90</i>	6 <i>1.39</i>	0 <i>0.00</i>	1	126 <i>2.20</i>	
Fetus or newborn affected by maternal alcohol use	11 <i>0.35</i>	10 <i>1.08</i>	1 <i>0.09</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	22 <i>0.38</i>	
Gastroschisis	52 <i>1.66</i>	26 <i>2.82</i>	27 <i>2.44</i>	3 <i>0.70</i>	1 <i>11.71</i>	3	112 <i>1.95</i>	

New Jersey

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	54 <i>1.72</i>	24 <i>2.60</i>	14 <i>1.27</i>	10 <i>2.32</i>	0 <i>0.00</i>	4	106 <i>1.85</i>	
Hydrocephalus without Spina Bifida	91 <i>2.90</i>	63 <i>6.83</i>	50 <i>4.52</i>	12 <i>2.79</i>	0 <i>0.00</i>	5	221 <i>3.86</i>	
Hypoplastic left heart syndrome	50 <i>1.59</i>	22 <i>2.38</i>	23 <i>2.08</i>	9 <i>2.09</i>	0 <i>0.00</i>	4	108 <i>1.88</i>	
Hypospadias and Epispadias	1,409 <i>44.85</i>	316 <i>34.26</i>	238 <i>21.53</i>	122 <i>28.33</i>	4 <i>46.84</i>	32	2,121 <i>37.01</i>	
Microcephalus	93 <i>2.96</i>	83 <i>9.00</i>	61 <i>5.52</i>	12 <i>2.79</i>	0 <i>0.00</i>	5	254 <i>4.43</i>	
Obstructive genitourinary defect	875 <i>27.85</i>	156 <i>16.91</i>	272 <i>24.61</i>	126 <i>29.26</i>	1 <i>11.71</i>	17	1,447 <i>25.25</i>	
Omphalocele	30 <i>0.95</i>	14 <i>1.52</i>	13 <i>1.18</i>	1 <i>0.23</i>	0 <i>0.00</i>	0	58 <i>1.01</i>	
Patent ductus arteriosus	1,943 <i>61.85</i>	670 <i>72.63</i>	556 <i>50.30</i>	195 <i>45.29</i>	4 <i>46.84</i>	20	3,388 <i>59.12</i>	
Pulmonary valve atresia and stenosis	434 <i>13.81</i>	293 <i>31.76</i>	149 <i>13.48</i>	43 <i>9.99</i>	2 <i>23.42</i>	7	928 <i>16.19</i>	
Pyloric stenosis	613 <i>19.51</i>	131 <i>14.20</i>	266 <i>24.07</i>	26 <i>6.04</i>	1 <i>11.71</i>	11	1,048 <i>18.29</i>	
Rectal and large intestinal atresia / stenosis	97 <i>3.09</i>	26 <i>2.82</i>	39 <i>3.53</i>	19 <i>4.41</i>	0 <i>0.00</i>	2	183 <i>3.19</i>	
Reduction deformity, lower limbs	44 <i>1.40</i>	19 <i>2.06</i>	19 <i>1.72</i>	2 <i>0.46</i>	0 <i>0.00</i>	1	85 <i>1.48</i>	
Reduction deformity, upper limbs	82 <i>2.61</i>	29 <i>3.14</i>	41 <i>3.71</i>	12 <i>2.79</i>	0 <i>0.00</i>	2	166 <i>2.90</i>	
Renal agenesis / hypoplasia	112 <i>3.56</i>	28 <i>3.04</i>	43 <i>3.89</i>	13 <i>3.02</i>	1 <i>11.71</i>	4	201 <i>3.51</i>	
Spina bifida without anencephalus	46 <i>1.46</i>	22 <i>2.38</i>	33 <i>2.99</i>	4 <i>0.93</i>	0 <i>0.00</i>	1	106 <i>1.85</i>	
Tetralogy of Fallot	130 <i>4.14</i>	47 <i>5.09</i>	45 <i>4.07</i>	14 <i>3.25</i>	1 <i>11.71</i>	2	239 <i>4.17</i>	
Transposition of great arteries	117 <i>3.72</i>	31 <i>3.36</i>	34 <i>3.08</i>	17 <i>3.95</i>	1 <i>11.71</i>	3	203 <i>3.54</i>	
Tricuspid valve atresia and stenosis	25 <i>0.80</i>	17 <i>1.84</i>	8 <i>0.72</i>	3 <i>0.70</i>	0 <i>0.00</i>	0	53 <i>0.92</i>	
Trisomy 13 (Patau syndrome)	19 <i>0.60</i>	8 <i>0.87</i>	10 <i>0.90</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	37 <i>0.65</i>	
Trisomy 18 (Edwards syndrome)	32 <i>1.02</i>	12 <i>1.30</i>	16 <i>1.45</i>	5 <i>1.16</i>	0 <i>0.00</i>	0	65 <i>1.13</i>	
Ventricular septal defect	1,839 <i>58.53</i>	437 <i>47.37</i>	579 <i>52.39</i>	192 <i>44.59</i>	6 <i>70.26</i>	25	3,078 <i>53.71</i>	
Total Live Births	314,172	92,249	110,526	43,060	854		573,117	

New Jersey

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	316	304	631
	6.93	26.01	11.01
Trisomy 13 (Patau syndrome)	23	14	37
	0.50	1.20	0.65
Trisomy 18 (Edwards syndrome)	39	24	65
	0.86	2.05	1.13
Total Live Births	456,138	116,896	573,117

(**) Total includes unknown age

New Mexico

Birth Defects Counts and Rates 2001

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	4 <i>4.64</i>	0 <i>0.00</i>	5 <i>3.68</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>3.36</i>	+
Cleft lip with and without cleft palate	11 <i>12.76</i>	1 <i>20.08</i>	22 <i>16.18</i>	0 <i>0.00</i>	11 <i>29.92</i>	0	45 <i>16.79</i>	+
Cleft palate without cleft lip	7 <i>8.12</i>	0 <i>0.00</i>	4 <i>2.94</i>	0 <i>0.00</i>	3 <i>8.16</i>	0	14 <i>5.22</i>	+
Spina bifida without anencephalus	5 <i>5.80</i>	0 <i>0.00</i>	7 <i>5.15</i>	0 <i>0.00</i>	1 <i>2.72</i>	0	13 <i>4.85</i>	+
Total Live Births	8,623	498	13,594	405	3,677		26,804	

New Mexico

Trisomy Counts and Rates by Maternal Age 2001

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	17 <i>7.09</i>	14 <i>49.58</i>	31 <i>11.57</i>
Trisomy 13 (Patau syndrome)	3 <i>1.25</i>	2 <i>7.08</i>	5 <i>1.87</i>
Trisomy 18 (Edwards syndrome)	1 <i>0.42</i>	2 <i>7.08</i>	3 <i>1.12</i>
Total Live Births	23,964	2,824	26,804

(**) Total includes unknown age

(+) Notes:

1. 2001, Anencephalus: excludes 740; includes prenatally diagnosed cases
2. 2001, Cleft lip with and without cleft palate: excludes 749
3. 2001, Cleft palate without cleft lip: excludes 749
4. 2001, Spina bifida without anencephalus: includes 741; includes prenatally diagnosed cases
5. 2001, Total Live Births: Asian/Pacific Islander included in Other

New York

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	11 0.16	1 0.04	5 0.19	0 0.00	0 0.00	0	17 0.13	
Anencephalus	27 0.40	11 0.47	9 0.34	2 0.23	0 0.00	1	50 0.39	
Aniridia	4 0.06	0 0.00	3 0.11	1 0.11	0 0.00	0	8 0.06	
Anophthalmia / microphthalmia	43 0.64	22 0.93	17 0.64	4 0.45	0 0.00	0	86 0.67	
Anotia / microtia	39 0.58	3 0.13	16 0.60	6 0.68	2 6.14	2	68 0.53	
Aortic valve stenosis	126 1.88	13 0.55	23 0.86	6 0.68	0 0.00	2	170 1.33	
Atrial septal defect	1,564 23.31	1,155 48.98	678 25.41	228 25.87	8 24.55	27	3,660 28.70	
Biliary atresia	45 0.67	36 1.53	19 0.71	16 1.82	1 3.07	2	119 0.93	
Bladder exstrophy	24 0.36	1 0.04	2 0.07	2 0.23	0 0.00	0	29 0.23	
Choanal atresia	108 1.61	20 0.85	39 1.46	8 0.91	0 0.00	3	178 1.40	
Cleft lip with and without cleft palate	512 7.63	107 4.54	174 6.52	62 7.03	5 15.35	12	872 6.84	
Cleft palate without cleft lip	452 6.74	86 3.65	143 5.36	40 4.54	1 3.07	7	729 5.72	
Coarctation of aorta	281 4.19	81 3.43	87 3.26	32 3.63	5 15.35	5	491 3.85	
Common truncus	35 0.52	16 0.68	14 0.52	3 0.34	0 0.00	0	68 0.53	
Congenital cataract	79 1.18	25 1.06	27 1.01	5 0.57	1 3.07	0	137 1.07	
Congenital hip dislocation	795 11.85	115 4.88	294 11.02	103 11.69	4 12.28	4	1,315 10.31	
Diaphragmatic hernia	76 1.13	26 1.10	21 0.79	8 0.91	1 3.07	1	133 1.04	
Down syndrome (trisomy 21)	769 11.46	225 9.54	265 9.93	77 8.74	2 6.14	16	1,354 10.62	
Ebstein's anomaly	39 0.58	7 0.30	14 0.52	8 0.91	0 0.00	0	68 0.53	
Encephalocele	35 0.52	17 0.72	19 0.71	3 0.34	2 6.14	0	76 0.60	
Endocardial cushion defect	172 2.56	70 2.97	37 1.39	12 1.36	0 0.00	1	292 2.29	
Esophageal atresia / tracheoesophageal fistula	192 2.86	28 1.19	46 1.72	6 0.68	0 0.00	0	272 2.13	
Fetus or newborn affected by maternal alcohol use	30 0.45	75 3.18	14 0.52	1 0.11	0 0.00	4	124 0.97	
Gastroschisis	85 1.27	32 1.36	37 1.39	1 0.11	0 0.00	0	155 1.22	

New York

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	142 <i>2.12</i>	60 <i>2.54</i>	43 <i>1.61</i>	20 <i>2.27</i>	1 <i>3.07</i>	1	267 <i>2.09</i>	
Hydrocephalus without Spina Bifida	389 <i>5.80</i>	245 <i>10.39</i>	186 <i>6.97</i>	51 <i>5.79</i>	1 <i>3.07</i>	7	879 <i>6.89</i>	
Hypoplastic left heart syndrome	116 <i>1.73</i>	41 <i>1.74</i>	58 <i>2.17</i>	6 <i>0.68</i>	0 <i>0.00</i>	1	222 <i>1.74</i>	
Hypospadias and Epispadias	2,735 <i>40.76</i>	717 <i>30.41</i>	515 <i>19.30</i>	203 <i>23.03</i>	10 <i>30.69</i>	27	4,207 <i>32.99</i>	
Microcephalus	209 <i>3.11</i>	193 <i>8.18</i>	132 <i>4.95</i>	39 <i>4.42</i>	2 <i>6.14</i>	1	576 <i>4.52</i>	
Obstructive genitourinary defect	1,822 <i>27.16</i>	445 <i>18.87</i>	687 <i>25.74</i>	230 <i>26.09</i>	7 <i>21.49</i>	15	3,206 <i>25.14</i>	
Omphalocele	68 <i>1.01</i>	29 <i>1.23</i>	25 <i>0.94</i>	5 <i>0.57</i>	1 <i>3.07</i>	1	129 <i>1.01</i>	
Patent ductus arteriosus	495 <i>7.38</i>	303 <i>12.85</i>	162 <i>6.07</i>	55 <i>6.24</i>	3 <i>9.21</i>	12	1,030 <i>8.08</i>	
Pulmonary valve atresia and stenosis	492 <i>7.33</i>	288 <i>12.21</i>	181 <i>6.78</i>	41 <i>4.65</i>	1 <i>3.07</i>	13	1,016 <i>7.97</i>	
Pyloric stenosis	1,228 <i>18.30</i>	218 <i>9.24</i>	537 <i>20.12</i>	73 <i>8.28</i>	4 <i>12.28</i>	3	2,063 <i>16.18</i>	
Rectal and large intestinal atresia / stenosis	271 <i>4.04</i>	71 <i>3.01</i>	98 <i>3.67</i>	32 <i>3.63</i>	1 <i>3.07</i>	3	476 <i>3.73</i>	
Reduction deformity, lower limbs	76 <i>1.13</i>	28 <i>1.19</i>	26 <i>0.97</i>	8 <i>0.91</i>	1 <i>3.07</i>	1	140 <i>1.10</i>	
Reduction deformity, upper limbs	112 <i>1.67</i>	31 <i>1.31</i>	38 <i>1.42</i>	10 <i>1.13</i>	0 <i>0.00</i>	2	193 <i>1.51</i>	
Renal agenesis / hypoplasia	198 <i>2.95</i>	68 <i>2.88</i>	66 <i>2.47</i>	17 <i>1.93</i>	2 <i>6.14</i>	4	355 <i>2.78</i>	
Spina bifida without anencephalus	125 <i>1.86</i>	56 <i>2.37</i>	63 <i>2.36</i>	13 <i>1.47</i>	0 <i>0.00</i>	2	259 <i>2.03</i>	
Tetralogy of Fallot	258 <i>3.85</i>	100 <i>4.24</i>	92 <i>3.45</i>	51 <i>5.79</i>	1 <i>3.07</i>	9	511 <i>4.01</i>	
Transposition of great arteries	276 <i>4.11</i>	71 <i>3.01</i>	68 <i>2.55</i>	39 <i>4.42</i>	2 <i>6.14</i>	4	460 <i>3.61</i>	
Tricuspid valve atresia and stenosis	45 <i>0.67</i>	28 <i>1.19</i>	13 <i>0.49</i>	6 <i>0.68</i>	1 <i>3.07</i>	0	93 <i>0.73</i>	
Trisomy 13 (Patau syndrome)	38 <i>0.57</i>	20 <i>0.85</i>	25 <i>0.94</i>	4 <i>0.45</i>	0 <i>0.00</i>	0	87 <i>0.68</i>	
Trisomy 18 (Edwards syndrome)	8 <i>0.12</i>	9 <i>0.38</i>	6 <i>0.22</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	23 <i>0.18</i>	
Ventricular septal defect	2,371 <i>35.34</i>	741 <i>31.42</i>	815 <i>30.54</i>	281 <i>31.88</i>	12 <i>36.83</i>	22	4,242 <i>33.26</i>	
Total Live Births	670,961	235,810	266,870	88,145	3,258		1,275,340	

New York

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	679	675	1,354
	6.53	28.71	10.62
Trisomy 13 (Patau syndrome)	61	26	87
	0.59	1.11	0.68
Trisomy 18 (Edwards syndrome)	14	9	23
	0.13	0.38	0.18
Total Live Births	1,040,058	235,092	1,275,340

(**) Total includes unknown age

North Carolina

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	52 <i>1.45</i>	17 <i>1.20</i>	19 <i>3.18</i>	3 <i>2.26</i>	1 <i>1.18</i>	9	101 <i>1.74</i>	
Aniridia	39 <i>1.09</i>	22 <i>1.56</i>	9 <i>1.51</i>	3 <i>2.26</i>	1 <i>1.18</i>	0	74 <i>1.27</i>	
Anophthalmia / microphthalmia	50 <i>1.40</i>	23 <i>1.63</i>	5 <i>0.84</i>	1 <i>0.75</i>	1 <i>1.18</i>	0	80 <i>1.38</i>	
Anotia / microtia	20 <i>0.56</i>	11 <i>0.78</i>	8 <i>1.34</i>	0 <i>0.00</i>	1 <i>1.18</i>	0	40 <i>0.69</i>	
Aortic valve stenosis	89 <i>2.49</i>	25 <i>1.77</i>	10 <i>1.68</i>	0 <i>0.00</i>	1 <i>1.18</i>	0	125 <i>2.15</i>	
Atrial septal defect	1,668 <i>46.60</i>	947 <i>67.04</i>	342 <i>57.29</i>	49 <i>36.92</i>	52 <i>61.30</i>	2	3,060 <i>52.66</i>	
Biliary atresia	87 <i>2.43</i>	43 <i>3.04</i>	14 <i>2.35</i>	5 <i>3.77</i>	2 <i>2.36</i>	1	152 <i>2.62</i>	
Bladder exstrophy	21 <i>0.59</i>	8 <i>0.57</i>	1 <i>0.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	30 <i>0.52</i>	
Choanal atresia	74 <i>2.07</i>	33 <i>2.34</i>	13 <i>2.18</i>	1 <i>0.75</i>	1 <i>1.18</i>	0	122 <i>2.10</i>	
Cleft lip with and without cleft palate	387 <i>10.81</i>	88 <i>6.23</i>	54 <i>9.05</i>	14 <i>10.55</i>	11 <i>12.97</i>	4	558 <i>9.60</i>	
Cleft palate without cleft lip	234 <i>6.54</i>	61 <i>4.32</i>	35 <i>5.86</i>	5 <i>3.77</i>	7 <i>8.25</i>	0	342 <i>5.89</i>	
Coarctation of aorta	213 <i>5.95</i>	84 <i>5.95</i>	32 <i>5.36</i>	2 <i>1.51</i>	5 <i>5.89</i>	0	336 <i>5.78</i>	
Common truncus	39 <i>1.09</i>	16 <i>1.13</i>	5 <i>0.84</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	60 <i>1.03</i>	
Congenital cataract	69 <i>1.93</i>	32 <i>2.27</i>	10 <i>1.68</i>	2 <i>1.51</i>	2 <i>2.36</i>	0	115 <i>1.98</i>	
Congenital hip dislocation	581 <i>16.23</i>	83 <i>5.88</i>	117 <i>19.60</i>	13 <i>9.80</i>	10 <i>11.79</i>	0	804 <i>13.84</i>	
Diaphragmatic hernia	145 <i>4.05</i>	54 <i>3.82</i>	27 <i>4.52</i>	8 <i>6.03</i>	3 <i>3.54</i>	0	237 <i>4.08</i>	
Down syndrome (trisomy 21)	433 <i>12.10</i>	158 <i>11.18</i>	101 <i>16.92</i>	18 <i>13.56</i>	6 <i>7.07</i>	3	719 <i>12.37</i>	
Ebstein's anomaly	18 <i>0.50</i>	4 <i>0.28</i>	7 <i>1.17</i>	0 <i>0.00</i>	1 <i>1.18</i>	0	30 <i>0.52</i>	
Encephalocele	27 <i>0.75</i>	23 <i>1.63</i>	13 <i>2.18</i>	3 <i>2.26</i>	0 <i>0.00</i>	2	68 <i>1.17</i>	
Endocardial cushion defect	150 <i>4.19</i>	75 <i>5.31</i>	27 <i>4.52</i>	6 <i>4.52</i>	5 <i>5.89</i>	1	264 <i>4.54</i>	
Esophageal atresia / tracheoesophageal fistula	114 <i>3.18</i>	35 <i>2.48</i>	23 <i>3.85</i>	5 <i>3.77</i>	6 <i>7.07</i>	1	184 <i>3.17</i>	
Gastroschisis	122 <i>4.26</i>	28 <i>2.47</i>	25 <i>4.84</i>	3 <i>2.75</i>	3 <i>4.44</i>	1	182 <i>3.88</i>	
Hirschsprung's disease (congenital megacolon)	99 <i>2.77</i>	66 <i>4.67</i>	8 <i>1.34</i>	9 <i>6.78</i>	1 <i>1.18</i>	0	183 <i>3.15</i>	
Hydrocephalus without Spina Bifida	359 <i>10.03</i>	196 <i>13.87</i>	53 <i>8.88</i>	15 <i>11.30</i>	9 <i>10.61</i>	4	636 <i>10.95</i>	

North Carolina

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	96 <i>2.68</i>	55 <i>3.89</i>	16 <i>2.68</i>	2 <i>1.51</i>	5 <i>5.89</i>	2	176 <i>3.03</i>	
Hypospadias and Epispadias	2,050 <i>57.27</i>	816 <i>57.76</i>	247 <i>41.38</i>	83 <i>62.54</i>	67 <i>78.98</i>	1	3,264 <i>56.17</i>	
Microcephalus	194 <i>5.42</i>	143 <i>10.12</i>	45 <i>7.54</i>	11 <i>8.29</i>	10 <i>11.79</i>	1	404 <i>6.95</i>	
Obstructive genitourinary defect	820 <i>22.91</i>	307 <i>21.73</i>	151 <i>25.30</i>	27 <i>20.34</i>	18 <i>21.22</i>	1	1,324 <i>22.79</i>	
Omphalocele	48 <i>1.67</i>	22 <i>1.94</i>	4 <i>0.77</i>	3 <i>2.75</i>	1 <i>1.48</i>	2	80 <i>1.70</i>	
Patent ductus arteriosus	1,276 <i>35.65</i>	666 <i>47.14</i>	266 <i>44.56</i>	39 <i>29.39</i>	31 <i>36.54</i>	0	2,278 <i>39.20</i>	
Pulmonary valve atresia and stenosis	419 <i>11.71</i>	208 <i>14.72</i>	71 <i>11.89</i>	14 <i>10.55</i>	13 <i>15.32</i>	0	725 <i>12.48</i>	
Pyloric stenosis	869 <i>24.28</i>	170 <i>12.03</i>	112 <i>18.76</i>	3 <i>2.26</i>	16 <i>18.86</i>	1	1,171 <i>20.15</i>	
Rectal and large intestinal atresia / stenosis	191 <i>5.34</i>	83 <i>5.88</i>	31 <i>5.19</i>	7 <i>5.27</i>	8 <i>9.43</i>	0	320 <i>5.51</i>	
Reduction deformity, lower limbs	59 <i>1.65</i>	32 <i>2.27</i>	13 <i>2.18</i>	4 <i>3.01</i>	2 <i>2.36</i>	0	110 <i>1.89</i>	
Reduction deformity, upper limbs	99 <i>2.77</i>	47 <i>3.33</i>	21 <i>3.52</i>	3 <i>2.26</i>	2 <i>2.36</i>	3	175 <i>3.01</i>	
Renal agenesis / hypoplasia	200 <i>5.59</i>	65 <i>4.60</i>	27 <i>4.52</i>	5 <i>3.77</i>	3 <i>3.54</i>	3	303 <i>5.21</i>	
Spina bifida without anencephalus	155 <i>4.33</i>	58 <i>4.11</i>	35 <i>5.86</i>	4 <i>3.01</i>	1 <i>1.18</i>	7	260 <i>4.47</i>	
Tetralogy of Fallot	188 <i>5.25</i>	106 <i>7.50</i>	15 <i>2.51</i>	5 <i>3.77</i>	5 <i>5.89</i>	2	321 <i>5.52</i>	
Transposition of great arteries	168 <i>4.69</i>	75 <i>5.31</i>	25 <i>4.19</i>	7 <i>5.27</i>	4 <i>4.72</i>	1	280 <i>4.82</i>	
Tricuspid valve atresia and stenosis	47 <i>1.31</i>	23 <i>1.63</i>	3 <i>0.50</i>	1 <i>0.75</i>	2 <i>2.36</i>	1	77 <i>1.33</i>	
Trisomy 13 (Patau syndrome)	48 <i>1.34</i>	27 <i>1.91</i>	13 <i>2.18</i>	2 <i>1.51</i>	0 <i>0.00</i>	5	95 <i>1.63</i>	
Trisomy 18 (Edwards syndrome)	82 <i>2.29</i>	38 <i>2.69</i>	21 <i>3.52</i>	3 <i>2.26</i>	1 <i>1.18</i>	4	149 <i>2.56</i>	
Ventricular septal defect	1,490 <i>41.62</i>	589 <i>41.69</i>	319 <i>53.44</i>	40 <i>30.14</i>	38 <i>44.80</i>	2	2,478 <i>42.65</i>	
Total Live Births	357,965	141,267	59,693	13,272	8,483		581,052	

North Carolina

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	445	274	719
	8.60	43.25	12.37
Trisomy 13 (Patau syndrome)	61	30	95
	1.18	4.74	1.63
Trisomy 18 (Edwards syndrome)	108	40	149
	2.09	6.31	2.56
Total Live Births	517,675	63,357	581,052

(**) Total includes unknown age

North Dakota

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	12 3.85	0 0.00	0 0.00	0 0.00	0 0.00	0 0	12 3.10	
Aniridia	1 0.32	0 0.00	0 0.00	0 0.00	0 0.00	0 0	1 0.26	
Anophthalmia / microphthalmia	8 2.57	0 0.00	0 0.00	0 0.00	1 1.86	0 0	9 2.33	
Anotia / microtia	2 0.64	0 0.00	0 0.00	0 0.00	1 1.86	0 0	3 0.78	
Aortic valve stenosis	11 3.53	0 0.00	0 0.00	0 0.00	1 1.86	0 0	12 3.10	
Atrial septal defect	137 43.97	0 0.00	0 0.00	0 0.00	51 94.88	11 11	199 51.47	
Biliary atresia	2 0.64	0 0.00	0 0.00	0 0.00	1 1.86	0 0	3 0.78	
Bladder exstrophy	1 0.32	0 0.00	0 0.00	0 0.00	1 1.86	0 0	2 0.52	
Cleft lip with and without cleft palate	43 13.80	0 0.00	0 0.00	0 0.00	10 18.60	0 0	53 13.71	
Cleft palate without cleft lip	19 6.10	0 0.00	0 0.00	0 0.00	8 14.88	2 2	29 7.50	
Coarctation of aorta	20 6.42	0 0.00	0 0.00	0 0.00	1 1.86	1 1	22 5.69	
Common truncus	2 0.64	0 0.00	0 0.00	0 0.00	5 9.30	1 1	8 2.07	
Congenital cataract	6 1.93	0 0.00	0 0.00	0 0.00	0 0.00	1 1	7 1.81	
Congenital hip dislocation	32 10.27	0 0.00	0 0.00	0 0.00	9 16.74	0 0	41 10.61	
Diaphragmatic hernia	15 4.81	0 0.00	0 0.00	0 0.00	3 5.58	1 1	19 4.91	
Down syndrome (trisomy 21)	36 11.55	0 0.00	0 0.00	0 0.00	7 13.02	2 2	45 11.64	
Ebstein's anomaly	3 0.96	0 0.00	0 0.00	0 0.00	0 0.00	0 0	3 0.78	
Encephalocele	4 1.28	0 0.00	0 0.00	0 0.00	2 3.72	0 0	6 1.55	
Endocardial cushion defect	10 3.21	0 0.00	0 0.00	0 0.00	0 0.00	0 0	10 2.59	
Esophageal atresia / tracheoesophageal fistula	9 2.89	0 0.00	0 0.00	0 0.00	3 5.58	1 1	13 3.36	
Fetus or newborn affected by maternal alcohol use	9 2.89	0 0.00	0 0.00	0 0.00	24 44.65	0 0	33 8.54	
Hirschsprung's disease (congenital megacolon)	6 1.93	0 0.00	0 0.00	0 0.00	1 1.86	2 2	9 2.33	
Hydrocephalus without Spina Bifida	38 12.20	0 0.00	0 0.00	0 0.00	9 16.74	2 2	49 12.67	
Hypoplastic left heart syndrome	18 5.78	0 0.00	0 0.00	0 0.00	1 1.86	0 0	19 4.91	

North Dakota

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypospadias and Epispadias	45 <i>14.44</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	8 <i>14.88</i>	0	53 <i>13.71</i>	
Microcephalus	39 <i>12.52</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	14 <i>26.05</i>	1	54 <i>13.97</i>	
Obstructive genitourinary defect	16 <i>5.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	4 <i>7.44</i>	2	22 <i>5.69</i>	
Patent ductus arteriosus	42 <i>13.48</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	26 <i>48.37</i>	6	74 <i>19.14</i>	
Pulmonary valve atresia and stenosis	54 <i>17.33</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	10 <i>18.60</i>	1	65 <i>16.81</i>	
Pyloric stenosis	65 <i>20.86</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	15 <i>27.91</i>	4	84 <i>21.73</i>	
Rectal and large intestinal atresia / stenosis	10 <i>3.21</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	17 <i>31.63</i>	0	27 <i>6.98</i>	
Reduction deformity, lower limbs	7 <i>2.25</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>3.72</i>	1	10 <i>2.59</i>	
Reduction deformity, upper limbs	7 <i>2.25</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>3.72</i>	0	9 <i>2.33</i>	
Renal agenesis / hypoplasia	19 <i>6.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	3 <i>5.58</i>	1	23 <i>5.95</i>	
Spina bifida without anencephalus	23 <i>7.38</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	5 <i>9.30</i>	0	28 <i>7.24</i>	
Tetralogy of Fallot	15 <i>4.81</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	3 <i>5.58</i>	2	20 <i>5.17</i>	
Transposition of great arteries	19 <i>6.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	3 <i>5.58</i>	0	22 <i>5.69</i>	
Tricuspid valve atresia and stenosis	4 <i>1.28</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>1.03</i>	
Trisomy 13 (Patau syndrome)	10 <i>3.21</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>2.59</i>	
Trisomy 18 (Edwards syndrome)	8 <i>2.57</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>3.72</i>	0	10 <i>2.59</i>	
Ventricular septal defect	144 <i>46.22</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	38 <i>70.70</i>	10	192 <i>49.66</i>	
Total Live Births	31,157	815	689	504	5,375		38,660	

North Dakota

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	30	15	45
	8.75	34.29	11.64
Trisomy 13 (Patau syndrome)	6	4	10
	1.75	9.14	2.59
Trisomy 18 (Edwards syndrome)	7	2	10
	2.04	4.57	2.59
Total Live Births	34,286	4,374	38,660

(**) Total includes unknown age

Oklahoma

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	25 1.45	2 0.86	3 1.36	0 0.00	2 0.80	0	32 1.29	
Anencephalus	38 2.20	5 2.15	7 3.17	0 0.00	5 2.00	0	55 2.21	+
Aniridia	5 0.29	0 0.00	0 0.00	0 0.00	1 0.40	0	6 0.24	
Anophthalmia / microphthalmia	30 1.74	0 0.00	5 2.26	0 0.00	6 2.40	0	41 1.65	
Anotia / microtia	21 1.22	2 0.86	0 0.00	3 6.49	5 2.00	0	31 1.25	
Aortic valve stenosis	75 4.35	4 1.72	6 2.71	0 0.00	7 2.80	0	92 3.70	
Atrial septal defect	875 50.71	111 47.70	77 34.84	9 19.48	154 61.58	12	1,238 49.86	
Biliary atresia	15 0.87	2 0.86	2 0.90	1 2.16	1 0.40	0	21 0.85	
Bladder exstrophy	10 0.58	1 0.43	0 0.00	0 0.00	0 0.00	0	11 0.44	
Choanal atresia	33 1.91	2 0.86	1 0.45	0 0.00	9 3.60	1	46 1.85	
Cleft lip with and without cleft palate	245 14.20	11 4.73	25 11.31	7 15.15	36 14.39	0	324 13.05	
Cleft palate without cleft lip	142 8.23	9 3.87	12 5.43	2 4.33	18 7.20	0	183 7.37	
Coarctation of aorta	87 5.04	10 4.30	5 2.26	4 8.66	4 1.60	2	112 4.51	
Common truncus	10 0.58	3 1.29	2 0.90	2 4.33	2 0.80	0	19 0.77	
Congenital cataract	38 2.20	6 2.58	3 1.36	1 2.16	7 2.80	1	56 2.26	
Congenital hip dislocation	111 6.43	4 1.72	9 4.07	0 0.00	12 4.80	1	137 5.52	
Diaphragmatic hernia	77 4.46	3 1.29	7 3.17	1 2.16	10 4.00	0	98 3.95	
Down syndrome (trisomy 21)	239 13.85	24 10.31	29 13.12	10 21.64	19 7.60	5	326 13.13	
Ebstein's anomaly	13 0.75	0 0.00	2 0.90	1 2.16	1 0.40	0	17 0.68	
Encephalocele	15 0.87	1 0.43	2 0.90	0 0.00	1 0.40	0	19 0.77	
Endocardial cushion defect	87 5.04	16 6.88	7 3.17	1 2.16	10 4.00	3	124 4.99	
Esophageal atresia / tracheoesophageal fistula	51 2.96	6 2.58	3 1.36	0 0.00	6 2.40	0	66 2.66	
Fetus or newborn affected by maternal alcohol use	7 0.41	1 0.43	0 0.00	0 0.00	2 0.80	0	10 0.40	
Gastroschisis	100 5.80	3 1.29	9 4.07	1 2.16	13 5.20	1	127 5.11	

Oklahoma

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	45 2.61	9 3.87	1 0.45	1 2.16	3 1.20	0	59 2.38	
Hydrocephalus without Spina Bifida	149 8.63	14 6.02	16 7.24	2 4.33	14 5.60	2	197 7.93	
Hypoplastic left heart syndrome	36 2.09	4 1.72	4 1.81	0 0.00	7 2.80	0	51 2.05	
Hypospadias and Epispadias	543 31.47	64 27.50	26 11.76	2 4.33	38 15.19	4	677 27.26	
Microcephalus	151 8.75	21 9.02	14 6.33	4 8.66	26 10.40	51	171 6.89	
Obstructive genitourinary defect	447 25.90	40 17.19	74 33.48	14 30.30	53 21.19	6	634 25.53	
Omphalocele	41 2.38	7 3.01	1 0.45	1 2.16	7 2.80	1	58 2.34	
Pulmonary valve atresia and stenosis	104 6.03	11 4.73	16 7.24	1 2.16	24 9.60	0	156 6.28	
Pyloric stenosis	492 28.51	20 8.59	35 15.84	0 0.00	51 20.39	1	597 24.04	
Rectal and large intestinal atresia / stenosis	133 7.71	9 3.87	13 5.88	2 4.33	23 9.20	2	182 7.33	
Reduction deformity, lower limbs	31 1.80	3 1.29	4 1.81	1 2.16	1 0.40	1	41 1.65	
Reduction deformity, upper limbs	61 3.54	12 5.16	11 4.98	0 0.00	7 2.80	0	91 3.66	
Renal agenesis / hypoplasia	89 5.16	7 3.01	8 3.62	3 6.49	11 4.40	0	118 4.75	
Spina bifida without anencephalus	76 4.40	6 2.58	12 5.43	2 4.33	10 4.00	0	106 4.27	+
Tetralogy of Fallot	87 5.04	5 2.15	7 3.17	2 4.33	14 5.60	0	115 4.63	
Transposition of great arteries	90 5.22	8 3.44	11 4.98	1 2.16	11 4.40	1	122 4.91	
Tricuspid valve atresia and stenosis	12 0.70	1 0.43	4 1.81	0 0.00	1 0.40	0	18 0.72	
Trisomy 13 (Patau syndrome)	28 1.62	2 0.86	4 1.81	1 2.16	3 1.20	0	38 1.53	
Trisomy 18 (Edwards syndrome)	42 2.43	7 3.01	2 0.90	1 2.16	2 0.80	0	54 2.17	
Ventricular septal defect	776 44.97	91 39.10	93 42.08	16 34.62	109 43.58	9	1,094 44.06	
Total Live Births	172,554	23,272	22,101	4,621	25,009		248,318	

Oklahoma

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	183	141	326
	8.04	69.44	13.13
Trisomy 13 (Patau syndrome)	31	7	38
	1.36	3.45	1.53
Trisomy 18 (Edwards syndrome)	36	18	54
	1.58	8.86	2.17
Total Live Births	227,709	20,306	248,318

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: live birth, stillbirth and termination ≥ 20 weeks
2. 1998-2002, Spina bifida without anencephalus: live birth, stillbirth and termination ≥ 20 weeks

Pennsylvania

Birth Defects Counts and Rates 2001

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Diaphragmatic hernia	24 2.19	1 0.52	0 0.00	0 0.00	0 0.00	0	25 1.74	
Down syndrome (trisomy 21)	127 11.59	10 5.20	10 12.28	1 2.64	0 0.00	0	148 10.32	
Esophageal atresia / tracheoesophageal fistula	33 3.01	1 0.52	2 2.46	2 5.27	0 0.00	1	39 2.72	
Hydrocephalus without Spina Bifida	66 6.02	20 10.40	6 7.37	0 0.00	1 33.11	1	94 6.55	
Microcephalus	21 1.92	4 2.08	2 2.46	1 2.64	0 0.00	0	28 1.95	
Rectal and large intestinal atresia / stenosis	30 2.74	1 0.52	3 3.68	1 2.64	0 0.00	0	35 2.44	
Renal agenesis / hypoplasia	34 3.10	3 1.56	1 1.23	0 0.00	0 0.00	1	39 2.72	
Spina bifida without anencephalus	29 2.65	10 5.20	3 3.68	1 2.64	0 0.00	0	43 3.00	+
Total Live Births	109,601	19,226	8,143	3,795	302		143,404	

Pennsylvania

Trisomy Counts and Rates by Maternal Age 2001

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	72 5.92	76 34.86	148 10.32
Total Live Births	121,573	21,802	143,404

(**) Total includes unknown age

(+) Notes:

- 2001, Spina bifida without anencephalus: live births and fetal deaths
- Birth defect data from matched birth and hospital discharge records are unduplicated.
- Fetal deaths are non-induced of 16+ weeks gestation.
- Live births include 2001 birth records for Pennsylvania resident occurrences and hospital discharge records (matched to 2001 birth records) for the period 01/01-12/03 that reported a birth defect as a primary, secondary or admission diagnosis.
- Total live births include 2001 birth records for Pennsylvania residents.

Puerto Rico

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	0 <i>0.00</i>	0 <i>0.00</i>	84 <i>2.91</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	84 <i>2.91</i>	
Cleft lip with and without cleft palate	0 <i>0.00</i>	0 <i>0.00</i>	155 <i>6.80</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	155 <i>6.80</i>	+
Cleft palate without cleft lip	0 <i>0.00</i>	0 <i>0.00</i>	95 <i>4.17</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	95 <i>4.17</i>	+
Down syndrome (trisomy 21)	0 <i>0.00</i>	0 <i>0.00</i>	69 <i>6.34</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	69 <i>6.34</i>	+
Encephalocele	0 <i>0.00</i>	0 <i>0.00</i>	13 <i>0.45</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	13 <i>0.45</i>	
Gastroschisis	0 <i>0.00</i>	0 <i>0.00</i>	26 <i>2.39</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	26 <i>2.39</i>	+
Spina bifida without anencephalus	0 <i>0.00</i>	0 <i>0.00</i>	148 <i>5.13</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	148 <i>5.13</i>	
Total Live Births			288,516				288,516	

Puerto Rico

Trisomy Counts and Rates by Maternal Age 2001-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	42 <i>4.19</i>	27 <i>31.20</i>	69 <i>6.34</i>
Total Live Births	100,133	8,654	108,854

(**) Total includes unknown age

(+) Notes:

1. 1999-2002, Cleft lip with and without cleft palate: data collection started in 1999
2. 1999-2002, Cleft palate without cleft lip: data collection started in 1999
3. 2001-2002, Down syndrome (trisomy 21): data collection started in 2001
4. 2001-2002, Gastroschisis: data collection started in 2001

Rhode Island

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	2 <i>0.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	3 <i>0.50</i>	
Aniridia	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	1 <i>0.17</i>	
Anophthalmia / microphthalmia	2 <i>0.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	2 <i>0.33</i>	
Anotia / microtia	6 <i>1.41</i>	1 <i>2.12</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>1.49</i>	
Aortic valve stenosis	7 <i>1.64</i>	1 <i>2.12</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	8 <i>1.32</i>	
Atrial septal defect	234 <i>54.87</i>	27 <i>57.12</i>	50 <i>57.18</i>	9 <i>49.21</i>	1 <i>117.65</i>	18	339 <i>56.09</i>	
Biliary atresia	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	1 <i>0.17</i>	
Bladder exstrophy	2 <i>0.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.33</i>	
Choanal atresia	6 <i>1.41</i>	0 <i>0.00</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	8 <i>1.32</i>	
Cleft lip with and without cleft palate	31 <i>7.27</i>	2 <i>4.23</i>	5 <i>5.72</i>	2 <i>10.934</i>	0 <i>0.00</i>	1	41 <i>6.78</i>	
Cleft palate without cleft lip	12 <i>2.81</i>	3 <i>6.35</i>	0 <i>0.00</i>	1 <i>5.47</i>	0 <i>0.00</i>	0	16 <i>2.65</i>	
Coarctation of aorta	11 <i>2.58</i>	0 <i>0.00</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>1.99</i>	
Common truncus	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	0 <i>0.00</i>	
Congenital cataract	5 <i>1.17</i>	0 <i>0.00</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	9 <i>1.49</i>	
Congenital hip dislocation	57 <i>13.37</i>	2 <i>4.23</i>	9 <i>10.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	4	72 <i>11.91</i>	
Diaphragmatic hernia	6 <i>1.41</i>	1 <i>2.12</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>1.49</i>	
Down syndrome (trisomy 21)	47 <i>11.02</i>	5 <i>10.58</i>	16 <i>18.30</i>	1 <i>5.47</i>	0 <i>0.00</i>	5	74 <i>12.24</i>	
Ebstein's anomaly	2 <i>0.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.33</i>	
Encephalocele	1 <i>0.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	3 <i>0.50</i>	
Endocardial cushion defect	5 <i>1.17</i>	1 <i>2.12</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	8 <i>1.32</i>	
Esophageal atresia / tracheoesophageal fistula	9 <i>2.11</i>	1 <i>2.12</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	11 <i>1.82</i>	
Hirschsprung's disease (congenital megacolon)	6 <i>1.41</i>	1 <i>2.12</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	10 <i>1.65</i>	
Hydrocephalus without Spina Bifida	13 <i>3.05</i>	7 <i>14.81</i>	5 <i>5.72</i>	2 <i>10.93</i>	0 <i>0.00</i>	0	27 <i>4.47</i>	
Hypoplastic left heart syndrome	4 <i>0.94</i>	0 <i>0.00</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	6 <i>0.99</i>	

Rhode Island

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypospadias and Epispadias	160 <i>37.52</i>	10 <i>21.16</i>	12 <i>13.72</i>	2 <i>10.93</i>	1 <i>117.65</i>	16	201 <i>33.26</i>	
Microcephalus	9 <i>2.11</i>	1 <i>2.12</i>	2 <i>2.29</i>	2 <i>10.93</i>	0 <i>0.00</i>	0	14 <i>2.32</i>	
Obstructive genitourinary defect	100 <i>23.45</i>	7 <i>14.81</i>	31 <i>35.45</i>	7 <i>38.27</i>	1 <i>117.65</i>	2	148 <i>24.49</i>	
Patent ductus arteriosus	156 <i>36.58</i>	22 <i>46.54</i>	40 <i>45.75</i>	11 <i>60.14</i>	0 <i>0.00</i>	6	235 <i>38.88</i>	+
Pulmonary valve atresia and stenosis	59 <i>13.84</i>	14 <i>29.62</i>	8 <i>9.15</i>	2 <i>10.93</i>	0 <i>0.00</i>	2	85 <i>14.06</i>	
Pyloric stenosis	4 <i>0.94</i>	0 <i>0.00</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.99</i>	
Rectal and large intestinal atresia / stenosis	15 <i>3.52</i>	4 <i>8.46</i>	5 <i>5.72</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	26 <i>4.30</i>	
Reduction deformity, lower limbs	2 <i>0.47</i>	1 <i>2.12</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.50</i>	
Reduction deformity, upper limbs	8 <i>1.88</i>	2 <i>4.23</i>	2 <i>2.29</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>1.99</i>	
Renal agenesis / hypoplasia	8 <i>1.88</i>	1 <i>2.12</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	10 <i>1.65</i>	
Spina bifida without anencephalus	10 <i>2.34</i>	0 <i>0.00</i>	2 <i>2.29</i>	1 <i>5.47</i>	0 <i>0.00</i>	2	15 <i>2.48</i>	
Tetralogy of Fallot	11 <i>2.58</i>	2 <i>4.23</i>	3 <i>3.43</i>	2 <i>10.93</i>	0 <i>0.00</i>	0	18 <i>2.98</i>	
Transposition of great arteries	7 <i>1.64</i>	1 <i>2.12</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	10 <i>1.65</i>	
Tricuspid valve atresia and stenosis	5 <i>1.17</i>	0 <i>0.00</i>	1 <i>1.14</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.99</i>	
Trisomy 13 (Patau syndrome)	1 <i>0.23</i>	0 <i>0.00</i>	1 <i>1.14</i>	1 <i>5.47</i>	0 <i>0.00</i>	1	4 <i>0.66</i>	
Trisomy 18 (Edwards syndrome)	4 <i>0.94</i>	2 <i>4.23</i>	0 <i>0.00</i>	1 <i>5.47</i>	0 <i>0.00</i>	0	7 <i>1.16</i>	
Ventricular septal defect	184 <i>43.15</i>	20 <i>42.31</i>	39 <i>44.60</i>	8 <i>43.74</i>	0 <i>0.00</i>	15	266 <i>44.01</i>	
Total Live Births	42,644	4,727	8,744	1,829	85		60,442	

Rhode Island

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	36	35	74
	7.13	33.63	12.15
Trisomy 13 (Patau syndrome)	1	3	4
	0.20	2.88	0.66
Trisomy 18 (Edwards syndrome)	2	3	7
	0.40	2.88	1.15
Total Live Births	50,479	10,407	60,917

(**) Total includes unknown age

(+) Notes:

1. 2000-2002, Patent ductus arteriosus: birth weight \geq 2500 grams

South Carolina

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	65 <i>3.88</i>	29 <i>2.96</i>	6 <i>5.21</i>	2 <i>23.78</i>	1 <i>59.88</i>	0	103 <i>3.71</i>	
Encephalocele	29 <i>1.73</i>	9 <i>0.92</i>	1 <i>0.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	39 <i>1.40</i>	
Spina bifida without anencephalus	61 <i>3.65</i>	36 <i>3.67</i>	4 <i>3.47</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	102 <i>3.67</i>	
Total Live Births	167,341	98,022	11,527	841	167		277,905	

Tennessee

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	20 1.23	7 1.31	3 2.09	0 0.00	0 0.00	0	30 1.28	
Aniridia	2 0.12	1 0.19	0 0.00	0 0.00	0 0.00	0	3 0.13	
Anophthalmia / microphthalmia	17 1.05	4 0.75	3 2.09	2 4.60	0 0.00	0	26 1.11	
Anotia / microtia	8 0.49	3 0.56	1 0.70	0 0.00	0 0.00	0	12 0.51	
Aortic valve stenosis	34 2.10	3 0.56	2 1.39	2 4.60	0 0.00	0	41 1.74	
Atrial septal defect	682 42.11	184 34.36	34 23.68	12 27.59	3 39.79	1	916 38.93	
Biliary atresia	7 0.43	4 0.75	0 0.00	1 2.30	0 0.00	0	12 0.51	
Bladder exstrophy	9 0.56	0 0.00	0 0.00	0 0.00	0 0.00	0	9 0.38	
Choanal atresia	35 2.16	6 1.12	1 0.70	0 0.00	0 0.00	1	43 1.83	
Cleft lip with and without cleft palate	202 12.47	50 9.34	15 10.45	4 9.20	0 0.00	0	271 11.52	
Cleft palate without cleft lip	112 6.91	27 5.04	9 6.27	1 2.30	0 0.00	0	149 6.33	
Coarctation of aorta	107 6.61	21 3.92	9 6.27	3 6.90	0 0.00	0	140 5.95	
Common truncus	11 0.68	8 1.49	1 0.70	0 0.00	0 0.00	0	20 0.85	
Congenital cataract	39 2.41	12 2.24	4 2.79	1 2.30	0 0.00	0	56 2.38	
Congenital hip dislocation	163 10.06	16 2.99	6 4.18	1 2.30	0 0.00	0	186 7.91	
Diaphragmatic hernia	50 3.09	20 3.73	6 4.18	3 6.90	0 0.00	0	79 3.36	
Down syndrome (trisomy 21)	202 12.47	56 10.46	17 11.84	5 11.49	0 0.00	0	280 11.90	
Ebstein's anomaly	19 1.17	3 0.56	2 1.39	1 2.30	0 0.00	0	25 1.06	
Encephalocele	15 0.93	9 1.68	0 0.00	2 4.60	0 0.00	0	26 1.11	
Endocardial cushion defect	60 3.70	13 2.43	2 1.39	1 2.30	0 0.00	0	76 3.23	
Esophageal atresia / tracheoesophageal fistula	45 2.78	16 2.99	3 2.09	0 0.00	0 0.00	0	64 2.72	
Fetus or newborn affected by maternal alcohol use	31 1.91	34 6.35	0 0.00	0 0.00	1 13.26	0	66 2.81	
Gastroschisis	75 4.63	19 3.55	3 2.09	4 9.20	0 0.00	1	102 4.34	
Hirschsprung's disease (congenital megacolon)	50 3.09	13 2.43	3 2.09	1 2.30	0 0.00	0	67 2.85	

Tennessee

Birth Defects Counts and Rates 2000-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hydrocephalus without Spina Bifida	120 <i>7.41</i>	52 <i>9.71</i>	9 <i>6.27</i>	5 <i>11.49</i>	0 <i>0.00</i>	0	186 <i>7.91</i>	
Hypoplastic left heart syndrome	59 <i>3.64</i>	18 <i>3.36</i>	7 <i>4.87</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	84 <i>3.57</i>	
Hypospadias and Epispadias	822 <i>50.75</i>	223 <i>41.64</i>	25 <i>17.41</i>	17 <i>39.08</i>	3 <i>39.79</i>	0	1,090 <i>46.33</i>	
Microcephalus	69 <i>4.26</i>	39 <i>7.28</i>	13 <i>9.05</i>	0 <i>0.00</i>	1 <i>13.26</i>	0	122 <i>5.19</i>	
Obstructive genitourinary defect	422 <i>26.05</i>	64 <i>11.95</i>	31 <i>21.59</i>	12 <i>27.59</i>	1 <i>13.26</i>	0	530 <i>22.53</i>	
Omphalocele	36 <i>2.22</i>	12 <i>2.24</i>	1 <i>0.70</i>	2 <i>4.60</i>	0 <i>0.00</i>	0	51 <i>2.17</i>	
Patent ductus arteriosus	673 <i>41.55</i>	254 <i>47.43</i>	44 <i>30.64</i>	18 <i>41.38</i>	3 <i>39.79</i>	0	992 <i>42.16</i>	+
Pulmonary valve atresia and stenosis	122 <i>7.53</i>	61 <i>11.39</i>	7 <i>4.87</i>	3 <i>6.90</i>	1 <i>13.26</i>	0	194 <i>8.25</i>	
Pyloric stenosis	519 <i>32.04</i>	60 <i>11.20</i>	34 <i>23.68</i>	4 <i>9.20</i>	4 <i>53.05</i>	1	622 <i>26.44</i>	
Rectal and large intestinal atresia / stenosis	88 <i>5.43</i>	31 <i>5.79</i>	2 <i>1.39</i>	1 <i>2.30</i>	0 <i>0.00</i>	0	122 <i>5.19</i>	
Reduction deformity, lower limbs	13 <i>0.80</i>	4 <i>0.75</i>	2 <i>1.39</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	19 <i>0.81</i>	
Reduction deformity, upper limbs	36 <i>2.22</i>	9 <i>1.68</i>	4 <i>2.79</i>	1 <i>2.30</i>	0 <i>0.00</i>	0	50 <i>2.13</i>	
Renal agenesis / hypoplasia	58 <i>3.58</i>	21 <i>3.92</i>	7 <i>4.87</i>	0 <i>0.00</i>	1 <i>13.26</i>	0	87 <i>3.70</i>	
Spina bifida without anencephalus	59 <i>3.64</i>	12 <i>2.24</i>	3 <i>2.09</i>	3 <i>6.90</i>	0 <i>0.00</i>	0	77 <i>3.27</i>	
Tetralogy of Fallot	78 <i>4.82</i>	35 <i>6.54</i>	3 <i>2.09</i>	2 <i>4.60</i>	1 <i>13.26</i>	0	119 <i>5.06</i>	
Transposition of great arteries	79 <i>4.88</i>	21 <i>3.92</i>	6 <i>4.18</i>	1 <i>2.30</i>	0 <i>0.00</i>	0	107 <i>4.55</i>	
Tricuspid valve atresia and stenosis	22 <i>1.36</i>	6 <i>1.12</i>	1 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	29 <i>1.23</i>	
Trisomy 13 (Patau syndrome)	14 <i>0.86</i>	7 <i>1.31</i>	2 <i>1.39</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	23 <i>0.98</i>	
Trisomy 18 (Edwards syndrome)	27 <i>1.67</i>	20 <i>3.73</i>	1 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	48 <i>2.04</i>	
Ventricular septal defect	693 <i>42.78</i>	178 <i>33.24</i>	51 <i>35.52</i>	10 <i>22.99</i>	3 <i>39.79</i>	1	936 <i>39.78</i>	
Total Live Births	161,976	53,556	14,359	4,350	754		235,290	

Tennessee

Trisomy Counts and Rates by Maternal Age 2000-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	168	111	279
	7.99	45.68	11.56
Trisomy 13 (Patau syndrome)	20	3	23
	0.95	1.23	0.98
Trisomy 18 (Edwards syndrome)	32	16	48
	1.52	6.58	2.04
Total Live Births	210,223	24,298	235,290

(**) Total includes unknown age

(+) Notes:

1. 2000-2002, Patent ductus arteriosus: birth weight \geq 2500 grams

Texas

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	40 0.59	20 1.04	70 0.86	4 0.75	1 2.78	0	135 0.77	
Anencephalus	157 2.32	38 1.97	277 3.42	10 1.86	0 0.00	9	491 2.82	
Aniridia	8 0.12	3 0.16	9 0.11	0 0.00	0 0.00	0	20 0.11	
Anophthalmia / microphthalmia	182 2.68	45 2.34	241 2.97	9 1.68	3 8.35	0	480 2.76	
Anotia / microtia	115 1.70	25 1.30	317 3.91	7 1.30	1 2.78	0	465 2.67	
Aortic valve stenosis	179 2.64	20 1.04	186 2.29	6 1.12	1 2.78	0	392 2.25	
Atrial septal defect	2,549 37.59	701 36.39	3,405 41.99	162 30.20	15 41.76	9	6,841 39.27	
Biliary atresia	30 0.44	20 1.04	55 0.68	8 1.49	0 0.00	0	113 0.65	
Bladder exstrophy	22 0.32	4 0.21	10 0.12	0 0.00	0 0.00	0	36 0.21	
Choanal atresia	91 1.34	18 0.93	100 1.23	2 0.37	0 0.00	0	211 1.21	
Cleft lip with and without cleft palate	701 10.34	139 7.22	934 11.52	53 9.88	11 30.62	3	1,841 10.57	
Cleft palate without cleft lip	459 6.77	88 4.57	417 5.14	25 4.66	4 11.14	1	994 5.71	
Coarctation of aorta	338 4.98	51 2.65	345 4.25	18 3.36	1 2.78	0	753 4.32	
Common truncus	55 0.81	13 0.67	76 0.94	4 0.75	1 2.78	0	149 0.86	
Congenital cataract	97 1.43	34 1.77	123 1.52	4 0.75	0 0.00	0	258 1.48	
Congenital hip dislocation	346 5.10	48 2.49	385 4.75	13 2.42	1 2.78	0	793 4.55	
Diaphragmatic hernia	162 2.39	42 2.18	224 2.76	13 2.42	0 0.00	2	443 2.54	
Down syndrome (trisomy 21)	796 11.74	142 7.37	1,081 13.33	59 11.00	1 2.78	12	2,091 12.00	
Ebstein's anomaly	40 0.59	5 0.26	56 0.69	5 0.93	0 0.00	0	106 0.61	
Encephalocele	49 0.72	15 0.78	90 1.11	8 1.49	1 2.78	2	165 0.95	
Endocardial cushion defect	269 3.97	84 4.36	279 3.44	15 2.80	1 2.78	2	650 3.73	
Esophageal atresia / tracheoesophageal fistula	158 2.33	33 1.71	164 2.02	4 0.75	1 2.78	0	360 2.07	
Fetus or newborn affected by maternal alcohol use	19 0.28	8 0.42	15 0.18	0 0.00	1 2.78	0	43 0.25	
Gastroschisis	250 3.69	44 2.28	370 4.56	12 2.24	3 8.35	2	681 3.91	

Texas

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschprung's disease (congenital megacolon)	103 <i>1.52</i>	46 <i>2.39</i>	55 <i>0.68</i>	8 <i>1.49</i>	1 <i>2.78</i>	0	213 <i>1.22</i>	
Hydrocephalus without Spina Bifida	466 <i>6.87</i>	169 <i>8.77</i>	553 <i>6.82</i>	18 <i>3.36</i>	1 <i>2.78</i>	5	1,212 <i>6.96</i>	
Hypoplastic left heart syndrome	155 <i>2.29</i>	41 <i>2.13</i>	146 <i>1.80</i>	8 <i>1.49</i>	0 <i>0.00</i>	1	351 <i>2.01</i>	
Hypospadias and Epispadias	2,603 <i>38.38</i>	629 <i>32.65</i>	1,427 <i>17.60</i>	132 <i>24.61</i>	5 <i>13.92</i>	5	4,801 <i>27.56</i>	
Microcephalus	363 <i>5.35</i>	179 <i>9.29</i>	553 <i>6.82</i>	34 <i>6.34</i>	4 <i>11.14</i>	3	1,136 <i>6.52</i>	
Obstructive genitourinary defect	1,520 <i>22.41</i>	329 <i>17.08</i>	1,642 <i>20.25</i>	88 <i>16.41</i>	7 <i>19.49</i>	9	3,595 <i>20.64</i>	
Omphalocele	157 <i>2.32</i>	47 <i>2.44</i>	164 <i>2.02</i>	9 <i>1.68</i>	2 <i>5.57</i>	4	383 <i>2.20</i>	
Patent ductus arteriosus	2,640 <i>38.93</i>	763 <i>39.61</i>	3,760 <i>46.37</i>	179 <i>33.37</i>	13 <i>36.19</i>	4	7,359 <i>42.24</i>	
Pulmonary valve atresia and stenosis	434 <i>6.40</i>	131 <i>6.80</i>	534 <i>6.59</i>	32 <i>5.97</i>	6 <i>16.70</i>	2	1,139 <i>6.54</i>	
Pyloric stenosis	1,418 <i>20.91</i>	157 <i>8.15</i>	1,629 <i>20.09</i>	25 <i>4.66</i>	4 <i>11.14</i>	2	3,235 <i>18.57</i>	
Rectal and large intestinal atresia / stenosis	303 <i>4.47</i>	92 <i>4.78</i>	429 <i>5.29</i>	15 <i>2.80</i>	3 <i>8.35</i>	3	845 <i>4.85</i>	
Reduction deformity, lower limbs	113 <i>1.67</i>	47 <i>2.44</i>	153 <i>1.89</i>	10 <i>1.86</i>	1 <i>2.78</i>	0	324 <i>1.86</i>	
Reduction deformity, upper limbs	251 <i>3.70</i>	74 <i>3.84</i>	336 <i>4.14</i>	18 <i>3.36</i>	2 <i>5.57</i>	3	684 <i>3.93</i>	
Renal agenesis / hypoplasia	321 <i>4.73</i>	96 <i>4.98</i>	425 <i>5.24</i>	19 <i>3.54</i>	1 <i>2.78</i>	4	866 <i>4.97</i>	
Spina bifida without anencephalus	210 <i>3.10</i>	56 <i>2.91</i>	340 <i>4.19</i>	5 <i>0.93</i>	2 <i>5.57</i>	7	620 <i>3.56</i>	
Tetralogy of Fallot	205 <i>3.02</i>	59 <i>3.06</i>	250 <i>3.08</i>	19 <i>3.54</i>	0 <i>0.00</i>	1	534 <i>3.07</i>	
Transposition of great arteries	329 <i>4.85</i>	68 <i>3.53</i>	378 <i>4.66</i>	25 <i>4.66</i>	3 <i>8.35</i>	0	803 <i>4.61</i>	
Tricuspid valve atresia and stenosis	155 <i>2.29</i>	62 <i>3.22</i>	204 <i>2.52</i>	13 <i>2.42</i>	1 <i>2.78</i>	2	437 <i>2.51</i>	
Trisomy 13 (Patau syndrome)	72 <i>1.06</i>	27 <i>1.40</i>	97 <i>1.20</i>	8 <i>1.49</i>	0 <i>0.00</i>	3	207 <i>1.19</i>	
Trisomy 18 (Edwards syndrome)	153 <i>2.26</i>	40 <i>2.08</i>	150 <i>1.85</i>	15 <i>2.80</i>	0 <i>0.00</i>	9	367 <i>2.11</i>	
Ventricular septal defect	2,594 <i>38.25</i>	580 <i>30.11</i>	4,038 <i>49.80</i>	161 <i>30.01</i>	9 <i>25.06</i>	11	7,393 <i>42.44</i>	
Total Live Births	678,157	192,630	810,857	53,642	3,592		1,742,123	

Texas

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	1,220	871	2,091
	7.81	48.61	12.00
Trisomy 13 (Patau syndrome)	145	62	207
	0.93	3.46	1.19
Trisomy 18 (Edwards syndrome)	195	172	367
	1.25	9.60	2.11
Total Live Births	1,562,722	179,171	1,742,123

(**) Total includes unknown age

(+) Notes:

1. All diagnoses are 'definite' certainty; possible/probable diagnoses are excluded.
2. All pregnancy outcomes among cases are included (live births, spontaneous fetal deaths at any gestational age, terminations at any gestational age).
3. Data from 2002 deliveries are considered provisional.
4. Diagnosis coding system is BPA/CDC.
5. Methodologic change: In 2003, we revised BPA code 746.100 to include conditions that were not strictly atresia or stenosis. As a result, we changed the name in our Registry reports from "tricuspid valve atresia or stenosis" to "anomalies of the tricuspid valve". The prevalence of this condition increased by 33% due to the change.

Utah

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	13 <i>0.84</i>	0 <i>0.00</i>	3 <i>1.20</i>	2 <i>3.47</i>	0 <i>0.00</i>	0	18 <i>0.94</i>	+
Anencephalus	32 <i>1.66</i>	0 <i>0.00</i>	11 <i>3.68</i>	1 <i>1.43</i>	1 <i>3.07</i>	2	47 <i>1.99</i>	
Aniridia	2 <i>0.13</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.10</i>	+
Anophthalmia / microphthalmia	22 <i>1.42</i>	0 <i>0.00</i>	9 <i>3.60</i>	1 <i>1.74</i>	0 <i>0.00</i>	0	32 <i>1.68</i>	+
Anotia / microtia	34 <i>2.19</i>	0 <i>0.00</i>	2 <i>0.67</i>	3 <i>4.28</i>	3 <i>9.22</i>	0	42 <i>2.20</i>	+
Aortic valve stenosis	59 <i>3.06</i>	0 <i>0.00</i>	5 <i>1.67</i>	0 <i>0.00</i>	1 <i>3.07</i>	0	65 <i>2.76</i>	
Atrial septal defect	282 <i>14.63</i>	5 <i>41.84</i>	57 <i>119.09</i>	6 <i>10.42</i>	9 <i>27.67</i>	0	359 <i>15.23</i>	+
Biliary atresia	10 <i>0.65</i>	1 <i>8.37</i>	1 <i>0.40</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.63</i>	+
Bladder exstrophy	5 <i>0.32</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.26</i>	+
Choanal atresia	23 <i>1.48</i>	2 <i>16.74</i>	5 <i>2.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	31 <i>1.63</i>	+
Cleft lip with and without cleft palate	275 <i>14.27</i>	0 <i>0.00</i>	48 <i>16.08</i>	8 <i>11.42</i>	8 <i>24.59</i>	2	341 <i>14.46</i>	
Cleft palate without cleft lip	165 <i>8.56</i>	1 <i>6.89</i>	17 <i>5.69</i>	9 <i>12.85</i>	2 <i>6.15</i>	0	194 <i>8.23</i>	
Coarctation of aorta	170 <i>8.82</i>	0 <i>0.00</i>	17 <i>5.69</i>	1 <i>1.43</i>	0 <i>0.00</i>	0	188 <i>7.97</i>	
Common truncus	23 <i>1.19</i>	0 <i>0.00</i>	4 <i>1.36</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	27 <i>1.15</i>	
Congenital cataract	31 <i>2.00</i>	1 <i>8.37</i>	4 <i>1.60</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	38 <i>1.99</i>	+
Diaphragmatic hernia	58 <i>3.74</i>	1 <i>8.37</i>	10 <i>4.00</i>	1 <i>1.74</i>	0 <i>0.00</i>	0	70 <i>3.67</i>	+
Down syndrome (trisomy 21)	267 <i>13.85</i>	1 <i>6.89</i>	52 <i>17.42</i>	14 <i>19.99</i>	4 <i>12.30</i>	5	343 <i>14.55</i>	
Ebstein's anomaly	12 <i>0.77</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.63</i>	+
Encephalocele	16 <i>0.83</i>	0 <i>0.00</i>	3 <i>1.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	20 <i>0.85</i>	
Endocardial cushion defect	90 <i>4.67</i>	0 <i>0.00</i>	13 <i>4.35</i>	2 <i>3.47</i>	3 <i>9.22</i>	1 <i>8.76</i>	109 <i>4.62</i>	+
Esophageal atresia / tracheoesophageal fistula	37 <i>2.39</i>	0 <i>0.00</i>	10 <i>4.00</i>	3 <i>5.21</i>	2 <i>7.67</i>	0	52 <i>2.73</i>	+
Gastroschisis	84 <i>4.36</i>	3 <i>20.66</i>	18 <i>6.03</i>	4 <i>5.71</i>	2 <i>6.15</i>	1	112 <i>4.75</i>	+
Hirschsprung's disease (congenital megacolon)	33 <i>2.13</i>	1 <i>8.37</i>	7 <i>2.80</i>	2 <i>3.47</i>	0 <i>0.00</i>	0	43 <i>2.26</i>	+
Hydrocephalus without Spina Bifida	71 <i>3.68</i>	0 <i>0.00</i>	13 <i>4.35</i>	4 <i>5.71</i>	1 <i>3.07</i>	1	90 <i>3.82</i>	

Utah

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	73 3.79	0 0.00	10 3.35	2 2.86	0 0.00	3	88 3.73	
Hypospadias and Epispadias	485 31.30	2 16.74	27 10.81	14 24.31	4 15.35	2	534 28.01	+
Microcephalus	55 3.55	0 0.00	10 4.00	0 0.00	0 0.00	0	65 3.41	+
Obstructive genitourinary defect	306 19.75	1 8.37	35 14.01	11 19.10	5 19.19	1	359 18.83	+
Omphalocele	47 2.44	0 0.00	9 3.01	5 7.14	0 0.00	1	62 2.63	
Pulmonary valve atresia and stenosis	190 12.26	1 8.37	23 9.21	3 5.21	1 3.84	1	219 11.49	+
Pyloric stenosis	206 13.30	0 0.00	36 14.41	2 3.47	0 0.00	0	244 12.80	+
Rectal and large intestinal atresia / stenosis	55 3.55	0 0.00	10 4.00	1 1.74	0 0.00	1	67 3.51	+
Reduction deformity, lower limbs	40 2.07	0 0.00	3 1.00	0 0.00	0 0.00	0	43 1.82	
Reduction deformity, upper limbs	88 4.56	0 0.00	10 3.35	4 5.71	1 3.07	1	104 4.41	
Renal agenesis / hypoplasia	59 3.81	0 0.00	4 1.60	2 3.47	1 3.84	0	66 3.46	+
Spina bifida without anencephalus	70 3.63	0 0.00	16 5.36	1 1.43	3 9.22	0	90 3.82	
Tetralogy of Fallot	64 3.32	0 0.00	9 3.01	1 1.43	1 3.07	1	76 3.22	
Transposition of great arteries	107 5.55	2 13.77	17 5.69	2 2.86	1 3.07	1	130 5.51	
Tricuspid valve atresia and stenosis	26 1.68	1 8.37	3 1.20	2 3.47	0 0.00	0	32 1.68	+
Trisomy 13 (Patau syndrome)	26 1.35	0 0.00	2 0.67	2 2.86	1 3.07	1	32 1.36	
Trisomy 18 (Edwards syndrome)	61 3.16	0 0.00	12 4.02	4 5.71	0 0.00	2	79 3.35	
Total Live Births	192,778	1,452	29,855	7,004	3,253		235,757	

Utah

Trisomy Counts and Rates by Maternal Age 1998-2002*(Rates per 10,000 Live Births)*

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	196	145	343
	9.13	68.70	14.55
Trisomy 13 (Patau syndrome)	28	4	32
	1.30	1.90	1.36
Trisomy 18 (Edwards syndrome)	46	31	79
	2.14	14.69	3.35
Total Live Births	214,626	21,107	235,757

(**) Total includes unknown age

(+) Notes:

1. Data are available for 1999–2002 only for the following defects: Amniotic bands, Aniridia, Anophthalmia/microphthalmia, Anotia/microtia, Atrial septal defect, Biliary atresia, Bladder exstrophy, Choanal atresia, Congenital cataract, Diaphragmatic hernia, Ebstein's anomaly, Endocardial cushion defect, Esophageal atresia/tracheoesophageal fistula, Hirshsprung's disease (congenital megacolon), Hypospadias and Epispadias, Microcephalus, Obstructive genitourinary defect, Pulmonary valve atresia and stenosis, Pyloric stenosis, Rectal and large intestinal atresia/stenosis, Renal agenesis/hypoplasia, Tricuspid valve atresia and stenosis.

2. 2000, Gastroschisis, 6 with abdominal wall defects as part of LBW complex

Virginia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	1 <i>0.07</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	1 <i>0.05</i>	+
Anencephalus	15 <i>0.47</i>	2 <i>0.18</i>	2 <i>0.52</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	20 <i>0.40</i>	
Aniridia	2 <i>0.06</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	3 <i>0.06</i>	
Anophthalmia / microphthalmia	7 <i>0.22</i>	4 <i>0.37</i>	1 <i>0.26</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.24</i>	
Anotia / microtia	6 <i>0.19</i>	2 <i>0.18</i>	1 <i>0.26</i>	1 <i>0.44</i>	0 <i>0.00</i>	2	12 <i>0.24</i>	
Aortic valve stenosis	16 <i>0.50</i>	5 <i>0.46</i>	1 <i>0.26</i>	3 <i>1.32</i>	0 <i>0.00</i>	15	40 <i>0.80</i>	
Atrial septal defect	635 <i>19.81</i>	175 <i>16.02</i>	83 <i>21.53</i>	47 <i>20.70</i>	0 <i>0.00</i>	858	1,798 <i>35.94</i>	
Biliary atresia	11 <i>0.34</i>	6 <i>0.55</i>	1 <i>0.26</i>	2 <i>0.88</i>	0 <i>0.00</i>	11	31 <i>0.62</i>	
Bladder exstrophy	3 <i>0.09</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	4 <i>0.08</i>	
Choanal atresia	25 <i>0.78</i>	7 <i>0.64</i>	1 <i>0.26</i>	1 <i>0.44</i>	0 <i>0.00</i>	18	52 <i>1.04</i>	
Cleft lip with and without cleft palate	180 <i>5.62</i>	26 <i>2.38</i>	20 <i>5.19</i>	11 <i>4.84</i>	0 <i>0.00</i>	3	240 <i>4.80</i>	
Cleft palate without cleft lip	97 <i>3.03</i>	24 <i>2.20</i>	4 <i>1.04</i>	6 <i>2.64</i>	0 <i>0.00</i>	35	166 <i>3.32</i>	
Coarctation of aorta	104 <i>3.24</i>	16 <i>1.46</i>	4 <i>1.04</i>	6 <i>2.64</i>	0 <i>0.00</i>	66	196 <i>3.92</i>	
Common truncus	10 <i>0.31</i>	7 <i>0.64</i>	1 <i>0.26</i>	2 <i>0.88</i>	0 <i>0.00</i>	15	35 <i>0.70</i>	
Congenital cataract	14 <i>0.44</i>	5 <i>0.46</i>	1 <i>0.26</i>	0 <i>0.00</i>	0 <i>0.00</i>	12	32 <i>0.64</i>	
Congenital hip dislocation	236 <i>7.36</i>	17 <i>1.56</i>	12 <i>3.11</i>	6 <i>2.64</i>	0 <i>0.00</i>	91	362 <i>7.24</i>	
Diaphragmatic hernia	46 <i>1.44</i>	14 <i>1.28</i>	4 <i>1.04</i>	4 <i>1.76</i>	0 <i>0.00</i>	23	91 <i>1.82</i>	
Down syndrome (trisomy 21)	228 <i>7.11</i>	64 <i>5.86</i>	24 <i>6.23</i>	14 <i>6.16</i>	1 <i>15.11</i>	137	468 <i>9.36</i>	
Ebstein's anomaly	9 <i>0.28</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	9	18 <i>0.36</i>	
Encephalocele	6 <i>0.19</i>	5 <i>0.46</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	17 <i>0.34</i>	
Endocardial cushion defect	56 <i>1.75</i>	18 <i>1.65</i>	1 <i>0.26</i>	0 <i>0.00</i>	0 <i>0.00</i>	44	119 <i>2.38</i>	
Esophageal atresia / tracheoesophageal fistula	55 <i>1.72</i>	9 <i>0.82</i>	4 <i>1.04</i>	1 <i>0.44</i>	0 <i>0.00</i>	25	94 <i>1.88</i>	
Fetus or newborn affected by maternal alcohol use	16 <i>0.50</i>	23 <i>2.11</i>	1 <i>0.26</i>	0 <i>0.00</i>	1 <i>15.11</i>	10	51 <i>1.02</i>	
Hirschsprung's disease (congenital megacolon)	34 <i>1.06</i>	22 <i>2.01</i>	3 <i>0.78</i>	0 <i>0.00</i>	0 <i>0.00</i>	35	94 <i>1.88</i>	

Virginia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hydrocephalus without Spina Bifida	75 <i>2.34</i>	51 <i>4.67</i>	11 <i>2.85</i>	3 <i>1.32</i>	0 <i>0.00</i>	30	170 <i>3.40</i>	
Hypoplastic left heart syndrome	40 <i>1.25</i>	10 <i>0.92</i>	0 <i>0.00</i>	1 <i>0.44</i>	0 <i>0.00</i>	26	77 <i>1.54</i>	
Hypospadias and Epispadias	244 <i>7.61</i>	78 <i>7.14</i>	6 <i>1.56</i>	6 <i>2.64</i>	1 <i>15.11</i>	170	630 <i>12.59</i>	
Microcephalus	52 <i>1.62</i>	35 <i>3.20</i>	6 <i>1.56</i>	7 <i>3.08</i>	0 <i>0.00</i>	45	145 <i>2.90</i>	
Obstructive genitourinary defect	97 <i>3.03</i>	41 <i>3.75</i>	7 <i>1.82</i>	6 <i>2.64</i>	0 <i>0.00</i>	9	160 <i>3.20</i>	
Patent ductus arteriosus	916 <i>28.58</i>	462 <i>42.30</i>	102 <i>26.46</i>	70 <i>30.82</i>	4 <i>60.42</i>	1,036	2,590 <i>51.78</i>	
Pulmonary valve atresia and stenosis	122 <i>3.81</i>	77 <i>7.05</i>	14 <i>3.63</i>	11 <i>4.84</i>	0 <i>0.00</i>	218	442 <i>8.84</i>	
Pyloric stenosis	198 <i>6.18</i>	24 <i>2.20</i>	8 <i>2.08</i>	6 <i>2.64</i>	0 <i>0.00</i>	209	445 <i>8.90</i>	
Rectal and large intestinal atresia / stenosis	74 <i>2.31</i>	23 <i>2.11</i>	3 <i>0.78</i>	4 <i>1.76</i>	0 <i>0.00</i>	42	146 <i>2.92</i>	
Reduction deformity, lower limbs	24 <i>0.75</i>	8 <i>0.73</i>	2 <i>0.52</i>	0 <i>0.00</i>	0 <i>0.00</i>	16	50 <i>1.00</i>	
Reduction deformity, upper limbs	38 <i>1.19</i>	7 <i>0.64</i>	2 <i>0.52</i>	0 <i>0.00</i>	0 <i>0.00</i>	18	65 <i>1.30</i>	
Renal agenesis / hypoplasia	62 <i>1.93</i>	15 <i>1.37</i>	7 <i>1.82</i>	1 <i>0.44</i>	1 <i>15.11</i>	25	111 <i>2.22</i>	
Spina bifida without anencephalus	60 <i>1.87</i>	14 <i>1.28</i>	9 <i>2.33</i>	2 <i>0.88</i>	0 <i>0.00</i>	7	92 <i>1.84</i>	
Tetralogy of Fallot	94 <i>2.93</i>	27 <i>2.47</i>	8 <i>2.08</i>	3 <i>1.32</i>	0 <i>0.00</i>	67	199 <i>3.98</i>	
Transposition of great arteries	67 <i>2.09</i>	12 <i>1.10</i>	6 <i>1.56</i>	0 <i>0.00</i>	0 <i>0.00</i>	44	129 <i>2.58</i>	
Tricuspid valve atresia and stenosis	11 <i>0.34</i>	12 <i>1.10</i>	0 <i>0.00</i>	3 <i>1.32</i>	0 <i>0.00</i>	11	37 <i>0.74</i>	
Trisomy 13 (Patau syndrome)	6 <i>0.19</i>	6 <i>0.55</i>	1 <i>0.26</i>	0 <i>0.00</i>	0 <i>0.00</i>	10	23 <i>0.46</i>	
Trisomy 18 (Edwards syndrome)	19 <i>0.59</i>	6 <i>0.55</i>	1 <i>0.26</i>	0 <i>0.00</i>	0 <i>0.00</i>	16	42 <i>0.84</i>	
Ventricular septal defect	541 <i>16.88</i>	146 <i>13.37</i>	55 <i>14.27</i>	28 <i>12.33</i>	0 <i>0.00</i>	543	1,313 <i>26.25</i>	
Total Live Births	320,553	109,219	38,545	22,709	662		500,234	

Virginia

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	225	196	468
	5.48	26.17	9.63
Trisomy 13 (Patau syndrome)	18	3	23
	0.44	0.40	0.47
Trisomy 18 (Edwards syndrome)	22	16	42
	0.54	2.14	0.86
Total Live Births	410,491	74,909	485,951

(**) Total includes unknown age

(+) Notes:

1. 2001-2002, Amniotic bands: data for 2001-2002 only
2. 1998-2002, Total Live Births: only VA residents included
3. Data for 2001 & 2002 have not been matched with birth certificates. This results in the large number of unknown race

West Virginia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Amniotic bands	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	0 <i>0.00</i>	
Anencephalus	6 <i>0.61</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.58</i>	
Aniridia	2 <i>0.20</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.19</i>	
Anophthalmia / microphthalmia	5 <i>0.50</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	5 <i>0.48</i>	
Anotia / microtia	2 <i>0.20</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.19</i>	
Aortic valve stenosis	12 <i>1.21</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	14 <i>1.35</i>	
Atrial septal defect	129 <i>13.02</i>	4 <i>10.98</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	8	141 <i>13.63</i>	
Biliary atresia	3 <i>0.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.29</i>	
Bladder exstrophy	2 <i>0.20</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.19</i>	
Choanal atresia	2 <i>0.20</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.19</i>	
Cleft lip with and without cleft palate	77 <i>7.77</i>	3 <i>8.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	82 <i>7.92</i>	
Cleft palate without cleft lip	27 <i>2.73</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	29 <i>2.80</i>	
Coarctation of aorta	25 <i>2.52</i>	2 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	27 <i>2.61</i>	
Common truncus	4 <i>0.40</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.39</i>	
Congenital cataract	4 <i>0.40</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.39</i>	
Congenital hip dislocation	15 <i>1.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	15 <i>1.45</i>	
Diaphragmatic hernia	19 <i>1.92</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	20 <i>1.93</i>	
Down syndrome (trisomy 21)	55 <i>5.55</i>	3 <i>8.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	6	64 <i>6.19</i>	
Ebstein's anomaly	3 <i>0.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.29</i>	
Encephalocele	0 <i>0.00</i>	1 <i>2.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	1 <i>0.10</i>	
Endocardial cushion defect	16 <i>1.62</i>	2 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	18 <i>1.74</i>	
Esophageal atresia / tracheoesophageal fistula	10 <i>1.01</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	10 <i>0.97</i>	
Fetus or newborn affected by maternal alcohol use	21 <i>2.12</i>	2 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	23 <i>2.22</i>	
Gastroschisis	12 <i>1.21</i>	1 <i>2.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	13 <i>1.26</i>	

West Virginia

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hirschsprung's disease (congenital megacolon)	7 <i>0.71</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	7 <i>0.68</i>	
Hydrocephalus without Spina Bifida	36 <i>3.63</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	38 <i>3.67</i>	
Hypoplastic left heart syndrome	18 <i>1.82</i>	2 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	20 <i>1.93</i>	
Hypospadias and Epispadias	68 <i>6.86</i>	4 <i>10.98</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	75 <i>7.25</i>	
Microcephalus	28 <i>2.83</i>	3 <i>8.23</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	33 <i>3.19</i>	
Obstructive genitourinary defect	64 <i>6.46</i>	1 <i>2.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	67 <i>6.47</i>	
Omphalocele	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	0 <i>0.00</i>	
Patent ductus arteriosus	181 <i>18.27</i>	4 <i>10.98</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	7	192 <i>18.56</i>	
Pulmonary valve atresia and stenosis	26 <i>2.62</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	27 <i>2.61</i>	
Pyloric stenosis	21 <i>2.12</i>	1 <i>2.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	1	23 <i>2.22</i>	
Rectal and large intestinal atresia / stenosis	22 <i>2.22</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	22 <i>2.13</i>	
Reduction deformity, lower limbs	4 <i>0.40</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.39</i>	
Reduction deformity, upper limbs	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	0 <i>0.00</i>	
Renal agenesis / hypoplasia	13 <i>1.31</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	13 <i>1.26</i>	
Spina bifida without anencephalus	17 <i>1.72</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	17 <i>1.64</i>	
Tetralogy of Fallot	28 <i>2.83</i>	2 <i>5.49</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2	32 <i>3.09</i>	
Transposition of great arteries	29 <i>2.93</i>	1 <i>2.74</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	30 <i>2.90</i>	
Tricuspid valve atresia and stenosis	3 <i>0.30</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.29</i>	
Trisomy 13 (Patau syndrome)	1 <i>0.10</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	1 <i>0.10</i>	
Trisomy 18 (Edwards syndrome)	4 <i>0.40</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	4 <i>0.39</i>	
Ventricular septal defect	103 <i>10.40</i>	4 <i>10.98</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	7	114 <i>11.02</i>	
Total Live Births	99,054	3,644					103,475	

West Virginia

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		
	<35	35 and >	Total (**)
Down syndrome (trisomy 21)	44	17	64
	4.65	20.22	6.19
Trisomy 13 (Patau syndrome)	0	1	1
	0.00	1.19	0.10
Trisomy 18 (Edwards syndrome)	3	1	4
	0.32	1.19	0.39
Total Live Births	94,612	8,408	103,475

(**) Total includes unknown age

Wisconsin

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	33 <i>1.21</i>	2 <i>0.62</i>	7 <i>3.10</i>	2 <i>1.91</i>	1 <i>2.22</i>	1	46 <i>1.34</i>	+
Aniridia	2 <i>0.07</i>	1 <i>0.31</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	3 <i>0.09</i>	
Anophthalmia / microphthalmia	14 <i>0.51</i>	0 <i>0.00</i>	0 <i>0.00</i>	1 <i>0.96</i>	0 <i>0.00</i>	0	15 <i>0.44</i>	
Anotia / microtia	7 <i>0.26</i>	0 <i>0.00</i>	2 <i>0.89</i>	0 <i>0.00</i>	1 <i>2.22</i>	0	10 <i>0.29</i>	
Aortic valve stenosis	19 <i>0.70</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	2 <i>4.43</i>	0	21 <i>0.61</i>	
Atrial septal defect	616 <i>22.60</i>	59 <i>18.34</i>	36 <i>15.95</i>	16 <i>15.28</i>	17 <i>37.67</i>	0	744 <i>21.73</i>	
Biliary atresia	2 <i>0.07</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	2 <i>0.06</i>	
Bladder exstrophy	15 <i>0.55</i>	1 <i>0.31</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	16 <i>0.47</i>	
Choanal atresia	36 <i>1.32</i>	1 <i>0.31</i>	4 <i>1.77</i>	2 <i>1.91</i>	1 <i>2.22</i>	0	44 <i>1.29</i>	
Cleft lip with and without cleft palate	227 <i>8.33</i>	10 <i>3.11</i>	19 <i>8.42</i>	7 <i>6.69</i>	8 <i>17.73</i>	0	271 <i>7.92</i>	
Cleft palate without cleft lip	172 <i>6.31</i>	8 <i>2.49</i>	13 <i>5.76</i>	8 <i>7.64</i>	5 <i>11.08</i>	0	206 <i>6.02</i>	
Coarctation of aorta	42 <i>1.54</i>	1 <i>0.31</i>	2 <i>0.89</i>	2 <i>1.91</i>	0 <i>0.00</i>	0	47 <i>1.37</i>	
Common truncus	4 <i>0.15</i>	3 <i>0.93</i>	2 <i>0.89</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	9 <i>0.26</i>	
Congenital cataract	32 <i>1.17</i>	4 <i>1.24</i>	4 <i>1.77</i>	1 <i>0.96</i>	0 <i>0.00</i>	0	41 <i>1.20</i>	
Congenital hip dislocation	322 <i>11.81</i>	19 <i>5.91</i>	17 <i>7.53</i>	9 <i>8.60</i>	7 <i>15.51</i>	0	374 <i>10.92</i>	
Diaphragmatic hernia	53 <i>1.94</i>	9 <i>2.80</i>	5 <i>2.22</i>	1 <i>0.96</i>	1 <i>2.22</i>	0	69 <i>2.02</i>	
Down syndrome (trisomy 21)	264 <i>9.69</i>	25 <i>7.77</i>	34 <i>15.06</i>	12 <i>11.46</i>	4 <i>8.86</i>	0	339 <i>9.90</i>	
Ebstein's anomaly	9 <i>0.33</i>	2 <i>0.62</i>	1 <i>0.44</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	12 <i>0.35</i>	
Encephalocele	19 <i>0.70</i>	2 <i>0.62</i>	3 <i>1.33</i>	1 <i>0.96</i>	1 <i>2.22</i>	0	26 <i>0.76</i>	
Endocardial cushion defect	43 <i>1.58</i>	2 <i>0.62</i>	1 <i>0.44</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	46 <i>1.34</i>	
Esophageal atresia / tracheoesophageal fistula	46 <i>1.69</i>	3 <i>0.93</i>	3 <i>1.33</i>	1 <i>0.96</i>	2 <i>4.43</i>	0	55 <i>1.61</i>	
Fetus or newborn affected by maternal alcohol use	18 <i>0.66</i>	32 <i>9.95</i>	0 <i>0.00</i>	0 <i>0.00</i>	6 <i>13.29</i>	0	56 <i>1.64</i>	
Hirschsprung's disease (congenital megacolon)	9 <i>0.33</i>	5 <i>1.55</i>	1 <i>0.44</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	15 <i>0.44</i>	
Hydrocephalus without Spina Bifida	72 <i>2.64</i>	25 <i>7.77</i>	10 <i>4.43</i>	1 <i>0.96</i>	2 <i>4.43</i>	0	110 <i>3.21</i>	

Wisconsin

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypoplastic left heart syndrome	43 <i>1.58</i>	3 <i>0.93</i>	2 <i>0.89</i>	0 <i>0.00</i>	1 <i>2.22</i>	0	49 <i>1.43</i>	+
Hypospadias and Epispadias	883 <i>32.40</i>	97 <i>30.16</i>	36 <i>15.95</i>	15 <i>14.33</i>	11 <i>24.37</i>	0	1,042 <i>30.43</i>	
Microcephalus	33 <i>1.21</i>	16 <i>4.97</i>	3 <i>1.33</i>	2 <i>1.91</i>	0 <i>0.00</i>	0	54 <i>1.58</i>	
Obstructive genitourinary defect	378 <i>13.87</i>	37 <i>11.50</i>	25 <i>11.08</i>	13 <i>12.42</i>	4 <i>8.86</i>	1	458 <i>13.38</i>	
Patent ductus arteriosus	651 <i>23.88</i>	53 <i>16.48</i>	43 <i>19.05</i>	15 <i>14.33</i>	15 <i>33.24</i>	0	777 <i>22.69</i>	
Pulmonary valve atresia and stenosis	101 <i>3.71</i>	38 <i>11.81</i>	13 <i>5.76</i>	2 <i>1.91</i>	2 <i>4.43</i>	0	156 <i>4.56</i>	
Pyloric stenosis	4 <i>0.15</i>	2 <i>0.62</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	6 <i>0.18</i>	
Rectal and large intestinal atresia / stenosis	90 <i>3.30</i>	13 <i>4.04</i>	6 <i>2.66</i>	8 <i>7.64</i>	0 <i>0.00</i>	0	117 <i>3.42</i>	
Reduction deformity, lower limbs	37 <i>1.36</i>	2 <i>0.62</i>	1 <i>0.44</i>	1 <i>0.96</i>	0 <i>0.00</i>	0	41 <i>1.20</i>	
Reduction deformity, upper limbs	71 <i>2.60</i>	7 <i>2.18</i>	3 <i>1.33</i>	2 <i>1.91</i>	1 <i>2.22</i>	0	84 <i>2.45</i>	
Renal agenesis / hypoplasia	74 <i>2.72</i>	7 <i>2.18</i>	5 <i>2.22</i>	1 <i>0.96</i>	4 <i>8.86</i>	0	91 <i>2.66</i>	
Spina bifida without anencephalus	74 <i>2.72</i>	9 <i>2.80</i>	9 <i>3.99</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	92 <i>2.69</i>	+
Tetralogy of Fallot	38 <i>1.39</i>	4 <i>1.24</i>	6 <i>2.66</i>	5 <i>4.78</i>	1 <i>2.22</i>	0	54 <i>1.58</i>	
Transposition of great arteries	49 <i>1.80</i>	4 <i>1.24</i>	2 <i>0.89</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	55 <i>1.61</i>	
Tricuspid valve atresia and stenosis	18 <i>0.66</i>	2 <i>0.62</i>	0 <i>0.00</i>	0 <i>0.00</i>	0 <i>0.00</i>	0	20 <i>0.58</i>	
Trisomy 13 (Patau syndrome)	17 <i>0.62</i>	3 <i>0.93</i>	1 <i>0.44</i>	1 <i>0.96</i>	1 <i>2.22</i>	0	23 <i>0.67</i>	
Trisomy 18 (Edwards syndrome)	26 <i>0.95</i>	6 <i>1.87</i>	2 <i>0.89</i>	1 <i>0.96</i>	0 <i>0.00</i>	0	35 <i>1.02</i>	
Ventricular septal defect	590 <i>21.65</i>	37 <i>11.50</i>	57 <i>25.25</i>	23 <i>21.97</i>	13 <i>28.81</i>	0	720 <i>21.03</i>	
Total Live Births	272,559	32,166	22,572	10,470	4,513		342,371	

Wisconsin

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	183	156	339
	6.16	34.45	9.90
Trisomy 13 (Patau syndrome)	18	5	23
	0.61	1.10	0.67
Trisomy 18 (Edwards syndrome)	20	15	35
	0.67	3.31	1.02
Total Live Births	297,062	45,286	342,378

(**) Total includes unknown age

(+) Notes:

1. 1998-2002, Anencephalus: includes stillbirth
2. 1998-2002, Hypoplastic left heart syndrome: excludes birth weights <2500 grams
3. 1998-2002, Spina bifida without anencephalus: includes stillbirth

Department of Defense

Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Anencephalus	49 1.60	14 1.65	5 1.26	3 1.95		5	76 1.60	
Aniridia	13 0.42	1 0.12	0 0.00	0 0.00		1	15 0.32	
Anophthalmia / microphthalmia	104 3.39	19 2.25	12 3.02	1 0.65		7	143 3.01	
Anotia / microtia	66 2.15	8 0.95	15 3.78	7 4.55		6	102 2.15	
Aortic valve stenosis	162 5.28	16 1.89	20 5.04	4 2.60		12	214 4.51	
Biliary atresia	49 1.60	10 1.18	4 1.01	3 1.95		6	72 1.52	
Bladder exstrophy	14 0.46	3 0.35	1 0.25	0 0.00		1	19 0.40	
Choanal atresia	105 3.42	38 4.49	8 2.02	1 0.65		7	159 3.35	
Cleft lip with and without cleft palate	487 15.88	64 7.57	52 13.11	25 16.25		26	654 13.78	
Cleft palate without cleft lip	480 15.65	76 8.98	47 11.85	24 15.60		27	654 13.78	
Coarctation of aorta	301 9.82	51 6.03	38 9.58	10 6.50		21	421 8.87	
Common truncus	83 2.71	18 2.13	9 2.27	6 3.90		6	122 2.57	
Congenital cataract	128 4.17	59 6.97	16 4.03	5 3.25		10	218 4.59	
Congenital hip dislocation	1,426 46.50	209 24.71	163 41.09	71 46.15		124	1,993 42.00	
Diaphragmatic hernia	153 4.99	41 4.85	17 4.29	4 2.60		8	223 4.70	
Down syndrome (trisomy 21)	476 15.52	106 12.53	59 14.87	31 20.15		52	724 15.26	
Ebstein's anomaly	73 2.38	3 0.35	4 1.01	3 1.95		3	86 1.81	
Encephalocele	62 2.02	23 2.72	10 2.52	2 1.30		9	106 2.23	
Endocardial cushion defect	224 7.30	51 6.03	18 4.54	6 3.90		20	319 6.72	
Esophageal atresia / tracheoesophageal fistula	121 3.95	23 2.72	15 3.78	3 1.95		5	167 3.52	
Fetus or newborn affected by maternal alcohol use	19 0.62	5 0.59	0 0.00	0 0.00		3	27 0.57	
Hirschsprung's disease (congenital megacolon)	190 6.20	79 9.34	22 5.55	7 4.55		15	313 6.60	
Hydrocephalus without Spina Bifida	503 16.40	150 17.73	64 16.13	15 9.75		36	768 16.18	
Hypoplastic left heart syndrome	135 4.40	46 5.44	19 4.79	7 4.55		9	216 4.55	

Department of Defense Birth Defects Counts and Rates 1998-2002

(Rates per 10,000 Live Births)

Defect	Race/Ethnicity						Total	Notes(+)
	Non-Hispanic White	Non-Hispanic Black or African	Hispanic	Asian or Pacific Islander	American Indian or Alaskan Native	Other/Unknown		
Hypospadias and Epispadias	1,829 59.64	424 50.12	151 38.06	68 44.20		127	2,599 54.77	
Microcephalus	456 14.87	132 15.60	63 15.88	17 11.05		32	700 14.75	
Obstructive genitourinary defect	1,156 37.70	228 26.95	141 35.54	48 31.20		85	1,658 34.94	
Pulmonary valve atresia and stenosis	803 26.18	356 42.08	111 27.98	49 31.85		65	1,384 29.16	
Pyloric stenosis	1,114 36.33	153 18.09	121 30.50	12 7.80		70	1,470 30.98	
Rectal and large intestinal atresia / stenosis	250 8.15	65 7.68	23 5.80	7 4.55		20	365 7.69	
Reduction deformity, lower limbs	117 3.82	41 4.85	16 4.03	7 4.55		14	195 4.11	
Reduction deformity, upper limbs	106 3.46	29 3.43	13 3.28	4 2.60		8	160 3.37	
Renal agenesis / hypoplasia	177 5.77	44 5.20	19 4.79	7 4.55		15	262 5.52	
Spina bifida without anencephalus	259 8.45	33 3.90	37 9.33	7 4.55		25	361 7.61	
Tetralogy of Fallot	258 8.41	72 8.51	21 5.29	9 5.85		13	373 7.86	
Transposition of great arteries	207 6.75	40 4.73	18 4.54	11 7.15		16	292 6.15	
Tricuspid valve atresia and stenosis	73 2.38	19 2.25	7 1.76	4 2.60		5	108 2.28	
Trisomy 13 (Patau syndrome)	32 1.04	15 1.77	4 1.01	3 1.95		5	59 1.24	
Trisomy 18 (Edwards syndrome)	71 2.32	17 2.01	11 2.77	9 5.85		3	111 2.34	
Ventricular septal defect	2,478 80.80	603 71.28	302 76.13	84 54.60		170	3,637 76.64	
Total Live Births	306,671	84,594	39,671	15,384			474,546	

Department of Defense

Trisomy Counts and Rates by Maternal Age 1998-2002

(Rates per 10,000 Live Births)

Defect	Age		Total (**)
	<35	35 and >	
Down syndrome (trisomy 21)	463	204	724
	11.35	54.39	15.26
Trisomy 13 (Patau syndrome)	42	12	59
	1.03	3.20	1.24
Trisomy 18 (Edwards syndrome)	72	25	111
	1.77	6.67	2.34
Total Live Births	407,755	37,506	474,546

(**) Total includes unknown age

(+) Notes:

1. DoD Registry data unable to distinguish "American Indian or Alaskan Native" race/ethnicity category