## INTRODUCTION

This report summarizes data compiled from the original records/reports which were filed with the Office of Vital Statistics (VS) as required by law. These include records/reports of live births, deaths, fetal deaths, marriages, dissolutions of marriage, and induced terminations of pregnancy. Standard forms recommended by the U.S. Public Health Conference on Records and Statistics are for the most part used for records of live birth, death and fetal death.

Responsibility for filing birth records lies with the physician, midwife or other attendant. Funeral directors, or other persons acting as such, are legally charged with filing death and fetal death (20 or more weeks gestation) records. These documents are then submitted to local registrars, who in turn forward them to VS. Marriage and dissolution records are received by VS directly from the various courts. Reports of induced terminations of pregnancy are received from the facilities or individuals who perform such procedures.

#### **HISTORICAL BACKGROUND:**

This marks the 85th year of statewide collection of birth and death records, which began in 1917. Marriage and dissolution records have been filed with VS since June 1927.

#### **COMPLETENESS AND QUALITY OF DATA:**

Tabulation of data for this annual report was begun after allowing a reasonable time of two months for receipt of late documents. A few records/reports are received after tabulation and thus are not included. These records/reports represent a very small fraction of the total, and their omission does not materially alter the facts presented. The quality of data presented in this annual report is directly related to the completeness, accuracy, and processing associated with the source documents, registration procedures, and statistical reporting systems.

## **AVAILABILITY OF DATA:**

In addition to data presented here and on the internet web site, data in greater detail, either from unpublished tables or from special statistical tapes, are available upon request on a fee-for-service basis. The Florida Department of Health Internet web site which contains this annual report is: http://www.doh.state.fl.us

### **RESIDENT AND RECORDED EVENTS:**

Data on births and deaths are tabulated according to both the usual "place of residence" (events occurring to Florida residents regardless of the place of occurrence) and the "place of occurrence" (events occurring in Florida regardless of the usual place of residence). The former are referred to as "resident" events and the latter as "recorded" events. Prior to 1933 only recorded data are available.

Varying interpretations of the "usual place of residence" by Florida's many seasonal visitors and military families may influence the accuracy of resident tabulations to some extent, since the residence stated on the record is normally accepted without question. For births and fetal deaths, the mother's residence is used when it differs from the father's residence.

Data on marriage and dissolution of marriage records and reports of induced terminations of pregnancy are by place of occurrence only; there is no interstate exchange of these records/reports. However, Florida dissolutions of marriage are granted only to legal residents.

#### **POPULATION:**

The resident midyear July 1 population estimates for 1996 to 2002 used for various rate calculations in this Annual Report were obtained from the Florida Consensus Estimating Conference. These estimates are being utilized pursuant to the data standardization resolution adopted by the Governor and Cabinet of the State of Florida. The population estimates for each year are based on the estimates produced by the Winter Demographic Estimating Conference. Based on the 2000 U.S. Census, estimates for 1991 through 2000 were determined to be aberrant and have been adjusted accordingly in this Annual Report.

Resident midyear July 1 population estimates for 1986 to 1995 were obtained from the Florida Population and Demographic Forecasts provided by the Office of Planning and Budgeting, Executive Office of the Governor. The population estimates for 1970 to 1985 were obtained from the Bureau of Economic and Business Research, University of Florida.

## RACE:

Race entries are usually counted as stated on live birth, death, fetal death, and marriage certificates. Designations such as "Hispanic" are classified as "white." Designations such as "bi-racial," "multi-racial," "nonwhite," or "mixed" are classified as "other entries."

Since 1989, the National Center for Health Statistics (NCHS) has classified live births and fetal deaths according to the race of the mother only. As a result of this change and for purposes of comparability, vital statistics data in this report have been modified and are based on the race of the mother for all live birth and fetal death data.

In examining trends for related indicators such as infant deaths, low birthweight, and unwed births, it is important to use the same race methodology throughout the time period being analyzed. As a result of the change in methodology from the use of the race of the child/fetus to the use of the race of the mother, some of the nonwhite births or fetal deaths (based on the race of child/fetus) will now be classified as white births (based on the race of the mother). This change will probably result in a slight decrease in the white infant death rate and an increase in the nonwhite infant death rate.

According to the U.S. Census Bureau, "Race and Ethnic questions are among the most technically complex and publicly controversial questions asked in the decennial census." Over the past three decades, the Census Bureau's definitions and coding processes have changed. The 1970 Census for Florida showed a population that was 15.3 percent black and 0.4 percent for all other nonwhite races. The 1980 Census showed 13.8 percent black and 2.2 percent for all other nonwhite races. This increase in the other nonwhite races results mainly from changes in the Census Bureau's definitions. After 1980, the Census Bureau corrected its data, and many persons, primarily white Hispanics, who had been listed as "others" were reclassified, and revised 1980 data for Florida had 13.8 percent black and 0.8 percent for all other nonwhite races. While the 1990 Census showed 12.2 percent black and 4.7 percent for all other nonwhite races, the 2000 Census showed 14.6 percent black and 7.4 percent for all other nonwhite races.

## **UNKNOWNS:**

Data in this publication may include persons whose age, race or gender may be unknown or not reported. As a result, the totals for these data may be greater than the sum of the components.

#### CAUSE OF DEATH:

The underlying cause of death is determined from death certificate medical information in accordance with procedures established by the World Health Organization (WHO) and NCHS. Standardized codes are assigned from the International Classification of Diseases (ICD). To keep abreast of changes in medical knowledge, the ICD is revised approximately every ten to fifteen years. Revisions and years used in Florida are:

<u>Revision</u>	<u>Years</u>	<u>Revision</u>	<u>Years</u>
Second	1917-1920	Seventh	. 1958-1967
Third	1921-1929	Eighth	. 1968-1978
Fourth	1930-1940	Ninth	1979-1998
Fifth	1941-1948	Tenth	1999-
Sixth	. 1949-1957		

Due to these revisions, some of which involve major changes, year-to-year comparisons of deaths by cause can be misleading, unless such comparisons span a period of years in which only one revision was used or, in which the changes from one revision to another were minor.

The Tenth Revision contains major modifications in many sections, so that more or less deaths are now (Tenth Revision) assigned to certain causes than under the Ninth Revision rules. To permit more accurate comparisons, NCHS coded a sample of 1996 U.S. deaths by both the Ninth and Tenth Revision rules. The results were grouped by major causes and, for each of these, the number of Tenth Revision deaths was divided by the number of Ninth Revision deaths to produce a comparability ratio. For example, the comparability ratio for Malignant Neoplasm is 1.0068. This means the Tenth Revision coding of 10,000 death certificates will produce about 68 more Malignant Neoplasms than would the Ninth Revision coding. The comparability ratios for 113 selected causes of death may be found on pages xi through xiii.

## AGE-ADJUSTED DEATH RATE (AADR):

The Age-Adjusted Death Rate (AADR) is a summary rate of deaths that facilitates the comparability of rates for areas or population subgroups with different age distributions. These rates are presented as per 1,000 or 100,000 population. AADR published in this report are the rates that would have been observed if the age-specific death rates for the given year had prevailed in a population whose age distribution was the same as that of the standard population. Through 1990 the population of the United States in 1940 was used as a standard for computation of AADR using the direct method. For 1990, and 1991 forward, the projected 2000 standard million population of the United States is used as a standard for computation of AADR using the direct method. The specified age intervals are under 1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, and 85 years and over for the years 1970 through 2002.

#### **COMPUTATIONS AND FOOTNOTES:**

The following procedures and symbols are used throughout this report:

- (1) All rates and ratios are rounded to the nearest tenth.
- (2) All rates and ratios that calculate to less than 0.05 are printed as "0.0."
- (3) Undefined/anomalous rates/ratios, i.e., those with denominators of zero, are printed as "—."
- (4) Statistically unreliable rates and ratios are those with denominators less than 100.
- (5) For 1990 and forward, Age-Adjusted Death Rates (AADR) are standardized using the direct method of standardization, to the U.S. projected 2000 standard million population.
- (6) NA is an abbreviation for not available.

# ICD-10 vs. ICD-9 -- COMPARABILITY RATIOS FOR 113 SELECTED CAUSES OF DEATH:

Cause of Death	ICD-10 Codes	ICD-9 Codes	Comparability Ratio
Salmonella Infections	A01-A02	002-003	0.8108
Shigellosis & Amebiasis	A03,A06	004,006	*
Certain Other Intestinal Infections	A04,A07-A09	007-009	
Tuberculosis	A16-A19	010-018	0.8547
Respiratory Tuberculosis	A16	010-012	0.9056
Other Tuberculosis	A17-A19	013-018	0.7031 *
Whooping Cough	A37	033	*
Scarlet Fever & Erysipelas	A38,A46	034.1-035	
Meningococcal Infection	A39	036	0.9955
Septicemia Sumbilia	A40-A41	038 090-097	1.1949
Syphilis Acute Poliomyelitis	A50-A53 A80	090-097	0.6364 *
•			*
Arthropod-Borne Viral Encephalitis  Measles	A83-A84,A85.2 B05	062-064 055	*
Viral Hepatitis	B15-B19	070	0.8343
Human Immunodeficiency Virus (HIV) Disease	B20-B24	042-044	1.1448
Malaria	B50-B54	084	*
Maidrid	A00,A05,A20-A36,A42-A44, A48-	001,005,020-032,037,039-	
	A49,A54-A79,A81-A82,A85.0-	041,046-054,056-061,065-	
Other & Unspec Infectious/Parasitic Diseases & Sequelae	A85.1,A85.8,A86-B04,B06-B09,B25	066,071-083,085-088,098-	1.0990
	B49,B55-B99	134,136-139,771.3	
Malianant Name (Oanan)	•		4.0000
Malignant Neoplasm (Cancer)	C00-C97	140-208	1.0068
Lip, Oral Cavity, Pharynx	C00-C14 C15	140-149 150	0.9603 0.9965
Esophagus Stomach	C15	151	1.0063
Colon, Rectum, Anus Liver & Intrahepatic Bile Ducts	C18-C21 C22	153-154	0.9993
Pancreas	C25	155 157	0.9634 0.9980
Larynx	C32	161	1.0047
Trachea, Bronchus, Lung	C33-C34	162	0.9837
Skin	C43	172	0.9677
Breast	C50	174-175	1.0056
Cervix Uteri	C53	180	0.9871
Corpus Uteri & Uterus, Part Unspecified	C54-C55	179,182	1.0260
Ovary	C56	183.0	0.9954
Prostate	C61	185	1.0134
Kidney & Renal Pelvis	C64-C65	189.0,189.1	1.0000
Bladder	C67	188	0.9968
Meninges, Brain, & Other Parts Central Nervous System	C70-C72	191-192	0.9691
Lymphoid, Hematopoietic and Related Tissue	C81-C96	200-208	1.0042
Hodgkin's Disease	C81	201	0.9855
Non-Hodgkin's Lymphoma	C82-C85	200,202	0.9781
Leukemia	C91-C95	204-208	1.0119
Multiple Myeloma & Immunoprolifera Neoplasms	C88,C90	203	1.0383
Oth & UnspecLymphoid, Hematopoie, Related Tissue	C96		*
	C17,C23-C24,C26-C31,C37-		
	C41.C44-C49.C51-C52.C57-	152,156,158-160,163-	
All Other & Unspecified	C60,C62-C63,C66,C68-C69,C73-	171,173,181,183.2-184,186-	1.1251
	C80,C97	187,189.2-190,193-199	
In Situ, Benign, Uncertain/Unknown Behavior Neoplasms	D00-D48	210-239	1.6744
Anemias	D50-D64	280-285	0.9559
Diabetes Mellitus	E10-E14	250	1.0082
Nutritional Deficiencies	E40-E64	260-269	1.1636
Malnutrition	E40-E46	260-263	0.9782
Other Nutritional Deficiencies	E50-E64	264-269	6.2041
Meningitis	G00,G03	320-322	1.0137
Parkinson's Disease	G20-G21	332	1.0012
Alzheimer's Disease	G30	331.0	1.5536
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# ICD-10 vs. ICD-9 (Cont.) -- COMPARABILITY RATIOS FOR 113 SELECTED CAUSES OF DEATH:

Cause of Death	ICD-10 Codes	ICD-9 Codes	Comparability Ratio
Major Cardiovascular Diseases	100-178	390-434,436-448	0.9981
Heart Diseases	100-109,111,113,120-151	390-398,402,404,410-429	0.9858
Acute Rheumatic Fever & Chronic Rheumatic Heart Disease	100-109	390-398	0.8208
Hypertensive Heart Disease	l11	402	0.8028
Hypertensive Heart & Renal Disease	113	404	1.0705
Ischemic Heart Disease	120-125	410-414,429.2	0.9990
Acute Myocardial Infarction	121-122	410	0.9887
Other Acute Ischemic Heart Disease	124	411	1.0110
Other Forms of Chronic Ischemic Heart Disease	120,125	412-414,429.2	1.0054
Atherosclerotic Cardiovascular Disease	125.0	429.2	1.0488
All Other Chronic Ischemic Heart Disease	120,125.1-125.9	412-414	0.9935
Other Heart Diseases	126-151	415-429.1,429.3-429.9	0.9716
Acute & Subacute Endocarditis	133	421	0.9964
Pericardium Diseases & Acute Myocarditis	130-131,140	420,422-423	1.0295
Heart Failure	150	428	1.0410
Other Forms Heart Disease	126-128,134-138,142-149,151	415-417,424-427,429.0-	0.9373
Other Forms Heart Disease	120-120,134-130,142-143,131	429.1,429.3-429.9	0.3373
Essen Hypertension & Hypertensive Renal Disease	l10,l12	401,403	1.1192
Cerebrovascular Diseases	160-169	430-434,436-438	1.0588
Atherosclerosis	170	440	0.9637
Other Diseases of Circulatory System	l71-l78	441-448	0.9456
Aortic Aneurysm & Dissection	<b>I71</b>	441	1.0012
Other Arteries, Arterioles, Capillaries Disease	172-178	442-448	0.8497
Other Circulatory System Disorders	180-199	451-459	1.0293
Influenza & Pneumonia	J10-J18	480-487	0.6982
Influenza	J10-J11	487	1.0088
Pneumonia	J12-J18	480-486	0.6957
Other Acute Lower Respiratory Infections	J20-J22	466	0.9746
Acute Bronchitis & Bronchiolitis	J20-J21	466	0.7465
Unspecified Acute Lower Respiratory Infection	J22		*
Chronic Lower Respiratory Diseases	J40-J47	490-494,496	1.0478
Bronchitis, Chronic & Unspecified	J40-J42	490-491	0.3935
Emphysema	J43	492	0.9726
Asthma	J45-J46	493	0.8938
Other Chronic Lower Respiratory Diseases	J44,J47	494.496	1.0970
Pneumoconioses & Chemical Effects	J60-J66,J68	500-506	1.0178
Pneumonitis Due to Solids & Liquids	J69	507	1.1185
Other Respiratory System Diseases	J00-J06,J30-J39,J67,J70-J98	034.0,460-465,470- 478,495,508-519	1.1673
Peptic Ulcer	K25-K28	531-534	0.9696
Appendix Diseases	K35-K38	540-543	1.0347
Hernia	K40-K46	550-553	1.0395
Chronic Liver Disease & Cirrhosis	K70,K73-K74	571	1.0367
Alcoholic Liver Disease	K70	571.0-571.3	1.0183
Other Chronic Liver Disease & Cirrhosis	K73-K74	571.4-571.9	1.0535
Cholelithiasis & Other Gallbladder Disorders	K80-K82	574-575	0.9567
Nephritis, Nephrotic Syndrome & Nephrosis	N00-N07,N17-N19,N25-N27	580-589	1.2320
Acute/Progressive Nephritic/Nephrotic Syndrome	N00-N01,N04	580-581	0.6466
Glomeruloneph, Nephri/Nephro, Renal Sclerosis	N02-N03,N05-N07,N26	582-583,587	0.3858
Renal Failure	N17-N19	584-586	1.2949
Other Kidney Disorders	N25,N27	588-589	0.9091
Kidney Infections	N10-N12,N13.6,N15.1	590	1.0069
Hyperplasia of Prostate	N40	600	0.9969
Female Pelvic Organs-Inflammatory Diseases	N70-N76	614-616	0.9844
Pregnancy, Childbirth, and the Puerperium	O00-099	630-676	*
Pregnancy With Abortive Outcome	000-007	630-639	*
Other Pregnancy, Childbirth, Puerperium Complications	O10-O99	640-676	*
Perinatal Period Conditions	P00-P96	760-771.2,771.4-779	1.0658
Congenital & Chromosomal Anomalies	Q00-Q99	740-759	0.8470
Symptoms, Signs, Abnormal Clinical/Lab Findings	R00-R99	780-799	0.9553
All Other Diseases (Residual)	Residual	Residual	0.8996
תוו סנווט בוסכמסכס (ווכסוטעמו)	residual	ı\cəlu uai	0.0330

# ICD-10 vs. ICD-9 (Cont.) -- COMPARABILITY RATIOS FOR 113 SELECTED CAUSES OF DEATH:

Cause of Death	ICD-10 Codes	ICD-9 Codes	Comparability Ratio
Unintentional Injury (Accident)	V01-X59,Y85-Y86	E800-E869,E880-E929	1.0305
Transport Accident	V01-V99,Y85	E800-E848,E929.0,E929.1	0.9978
Motor Vehicle	V02-V04,V09.0,V09.2,V12- V14,V19.0-V19.2,V19.4-V19.6,V20- V79,V80.3-V80.5,V81.0- V81.1,V82.0-V82.1,V83-V86,V87.0- V87.8,V88.0-V88.8,V89.0,V89.2	E810-E825	0.9754
Other Land Transport	V01,V05-V06,V09.1,V09.3- V09.9,V10-V11,V15- V18,V19.3,V19.8-V19.9,V80.0- V80.2,V80.6-V80.9,V81.2- V81.9,V82.2- V82.9,V87.9,V88.9,V89.1,V89.3, V89.9	E800-E807,E826-E829	*
Water/Air/Space/Other-Unspecified Transport & Sequelae	V90-V99,Y85	E830-E848,E929.0,E929.1	1.0115
Nontransport Accident	W00-X59,Y86	E850-E869,E880- E928,E929.2-E929.9	1.0763
Falls	W00-W19	E880-E888	0.8409
Firearms Discharge	W32-W34	E922	1.0579
Drowning & Submersion	W65-W74	E910	0.9965
Smoke, Fire, Flames Exposure	X00-X09	E890-E899	0.9743
Poisoning & Noxious Substance Exposure	X40-X49	E850-E869,E924.1	*
Other & Unspecified Nontransport & Sequelae	W20-W31,W35-W64,W75-W99,X10- X39,X50-X59,Y86	E900-E909,E911-E921,E923- E924.0,E924.8-E928,E929.2- E929.9	1.4188
Suicide	X60-X84,Y87.0	E950-E959	0.9962
Firearms Discharge	X72-X74	E955.0-E955.4	0.9982
Other & Unspec Means & Sequelae	X60-X71,X75-X84,Y87.0	E950-E954,E955.5-E959	0.9896
Homicide	X85-Y09,Y87.1	E960-E969	0.9983
Firearms Discharge	X93-X95	E965.0-E965.4	0.9969
Other & Unspecified Means & Sequelae	X85-X92,X96-Y09,Y87.1	E960-E964,E965.5-E969	1.0017
Legal Intervention	Y35,Y89.0	E970-E978	*
Undetermined Injury	Y10-Y34,Y87.2,Y89.9	E980-E989	*
Firearms Discharge	Y22-Y24	E985.0-E985.4	*
Other & Unspecified Event & Sequelae	Y10-Y21,Y25-Y34,Y87.2,Y89.9	E980-E984,E985.5-E989	*
War Operations & Sequelae	Y36,Y89.1	E990-E999	*
Medical & Surgical Care Complications	Y40-Y84,Y88	E870-E879,E930-E949	*

<sup>--</sup>Category not applicable

<sup>\*</sup> Figure does not meet standards of reliability or precision

## RATES AND FORMULAE

**Age-adjusted death rate (AADR):** Number of deaths occurring among a population adjusted to the projected 2000 standard million population of the United States using the direct method. An AADR is used to control for differences when comparing two or more populations or the same populations over time.

Sum of the products of age-specific death rates with standard population proportion

**Age-specific rate:** Number of events occurring to a specific age group per 1,000 or 100,000 population of the specified age group.

Number of events to specific age group x 1,000 (or 100,000)

Estimated midyear population of specific age group

Cause specific death rate: Number of deaths due to a specific cause per 100,000 population.

Number of deaths from a specific cause x 100,000 Estimated midyear population

(Crude) birth rate: Number of live births per 1,000 population.

Number of live births x 1,000 Estimated midyear population

(Crude) death rate: Number of deaths per 1,000 population.

Number of deaths x 1,000 Estimated midyear population

(Crude) divorce rate: Number of divorces per 1,000 population.

Number of divorces x 1,000 Estimated midyear population

(Crude) marriage rate: Number of marriages per 1,000 population.

Number of marriages x 1,000 Estimated midyear population

Fetal death rate: Number of fetal deaths (20 weeks or more gestation) per 1,000 live births plus fetal deaths.

Number of fetal deaths x 1,000 Number of live births + number of fetal deaths

Fetal death ratio: Number of fetal deaths (20 weeks or more gestation) per 1,000 live births.

Number of fetal deaths x 1,000 Number of live births

**General fertility rate:** The total number of births in a year per 1,000 female population, aged 15-44 years.

Number of live births x 1,000
Estimated midyear female population aged 15-44 years

Infant mortality rate: Deaths to individuals less than 1 year of age per 1,000 live births.

Number of infant deaths x 1,000 Number of live births

**Maternal mortality rate:** Number of deaths due to complications of pregnancy, childbirth, abortion, or the puerperium (ICD-10 O00-O99) per 10,000 live births.

Number of maternal deaths x 10,000
Number of live births

Natural increase: The difference between the number of live births and the number of deaths.

Number of live births - number of deaths

Neonatal mortality rate: Deaths to individuals less than 28 days of age per 1,000 live births.

Number of deaths < 28 days x 1,000 Number of live births

Percent live births to unwed mothers: Percent of unwed live births to the total number of live births.

Number of live births to unwed mothers x 100
Number of live births

**Percent low birth weight:** Percent of live births weighing less than 2500 grams to the total number of live births.

Number of low weight live births x 100
Number of live births

**Percent very low birth weight:** Percent of live births weighing less than 1500 grams to the total number of live births.

Number of very low weight live births x 100

Number of live births

**Perinatal mortality rate:** Fetal deaths (20 weeks or more gestation) plus neonatal deaths (occurring in the first 28 days of life) per 1,000 live births plus fetal deaths.

Number of fetal deaths + number of neonatal deaths x 1,000 Number of fetal deaths + number of live births

Post-neonatal mortality rate: Number of infant deaths of age 28 through 364 days per 1,000 live births.

Number of infant deaths aged 28 through 364 days x 1,000 Number of live births

**Note:** Although totals may include persons whose age, race, or gender may be unknown, the process of "imputation" (using an algorithm to assign a known value to an unknown value) is not used in calculating any rate, ratio, or percentage.

## SOURCES OF ADDITIONAL DATA

Internet: www.doh.state.fl.us

Copies of vital records......Office of Vital Statistics

(904) 359-6900 or Suncom 826-6900, ext. 9000

Public health trend data ......Office of Planning, Evaluation, and Data Analysis (Historical data on most aspects of public health in Florida from

1961 to the present)

(850) 245-4009 or Suncom 205-4009

Morbidity statistics.....Epidemiology

(850) 245-4401 or Suncom 205-4401

**Environmental Epidemiology** 

(850) 245-4299 or Suncom 205-4299

Tuberculosis and Refugee Health (850) 245-4350 or Suncom 205-4350

Sexually Transmitted Diseases (850) 245-4303 or Suncom 205-4303

HIV/AIDS Surveillance

(850) 245-4330 or Suncom 205-4330

Florida population estimates......Office of Economic and Demographic Research

(850) 487-1402 or Suncom 277-1402

Internet: www.state.fl.us/edr/

Florida health care information.......Agency for Health Care Administration

(850) 922-5771 or Suncom 292-5771

Internet: www.floridahealthstat.com

Florida motor vehicle/highway data......Department of Motor Vehicles and Highway Safety

(850) 488-4300 Internet: www.hsmv.state.fl.us

National vital statistics......National Center for Health Statistics

(301) 458-4636 Internet: www.cdc.gov/nchs/

National morbidity statistics......Centers for Disease Control

(404) 639-3311 Internet: www.cdc.gov/

National population census data ......Bureau of the Census

(301) 457-1214 Internet: www.census.gov/

National accident statistics ......National Safety Council

(708) 285-1121 Internet: www.nsc.org