

# Delaware Transportation Facts 2001



Delaware  
Transportation  
Facts 2001



Ruth Ann Minner  
Governor

Nathan Hayward III  
Secretary

Delaware Department of Transportation



# Welcome to Delaware.

Ruth Ann Minner, Governor



## Letter from Governor Minner



Transportation infrastructure continues to play a vital role in Delaware's economy. In our culture, it's a way of life.

It's projected that by the year 2020 our population is expected to grow to nearly 860,000. Our priority then, must be to manage our infrastructure and overall transportation system in such a way that we improve the quality of life for our growing population.

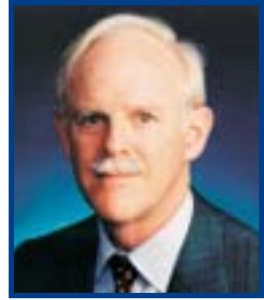
My administration, including the Department of Transportation, will continue to work toward preserving and protecting existing infrastructure investments and assets. This year I introduced my "Livable Delaware" plan to all Delawareans. One of the goals of "Livable Delaware" is to provide a transportation system that meets the varied needs of our communities and businesses. This means improving our transportation system in a way that makes it easily accessible and usable by walkers, bikers, commuters, transit users, cars, and commercial transport.

Information about how Delaware is working to improve our transportation system can be found in this transportation book. Thank you for your support, and your interest in our state.

A handwritten signature in blue ink that reads "Ruth Ann Minner". The signature is written in a cursive, flowing style.

Ruth Ann Minner  
Governor, State of Delaware

# Letter from Secretary Hayward



Transportation plays an important role in people's lives. It's about getting people and goods from one place to another. The mission of the Department of Transportation is to provide a safe, efficient, and environmentally sensitive transportation network to do that.

As I move into my second year as Transportation Secretary, my commitment remains to transform DeIDOT into a more accessible, responsive, and efficient agency. We are proud to present the third edition of this booklet, which we hope will provide helpful transportation facts and figures. Good, up-to-date information about our transportation system is critical as the state addresses land use and environmental issues.

Please feel free to contact us with your comments and questions. Your opinions are important in helping us shape a safe, efficient, and environmentally sensitive transportation system.

Many thanks.

A handwritten signature in blue ink, appearing to read "N. Hayward III". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Nathan Hayward III  
Secretary, Delaware Department of Transportation

# DeIDOT Organization & Mission

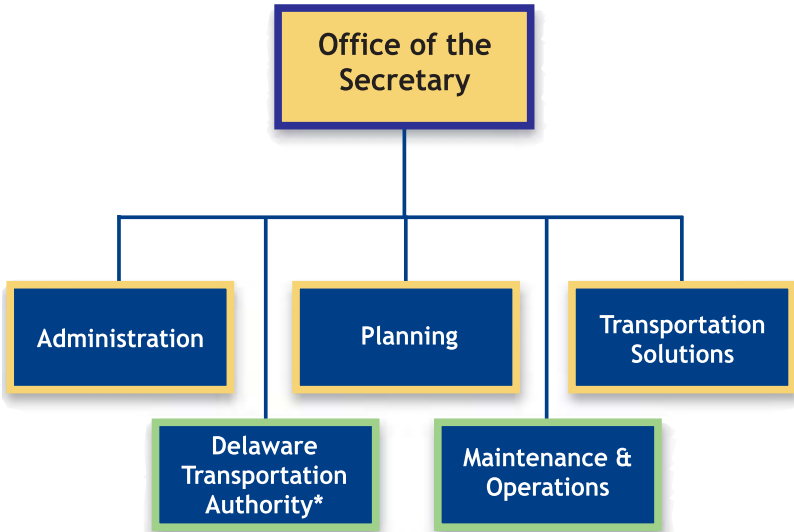
## The Delaware Department of Transportation (DeIDOT)

### DeIDOT's Mission:

The mission of the Department of Transportation is to provide a safe, efficient, and environmentally sensitive transportation network that offers a variety of convenient, cost-effective mobility opportunities for people and the movement of goods.



# DeIDOT Organization



\* Delaware Transit Corp operates under this authority



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# Introduction

*Delaware has the advantage of a diverse geography and economy and a central location. It is within a short drive of the metropolitan areas of Philadelphia, Baltimore, and Washington, DC, and is ideally positioned along the Atlantic Seaboard. Maintaining existing transportation connections between cities, manufacturing centers, ports, agricultural regions, and other key locations within our boundaries is vital to our economy.*

*Delaware is a leader in banking, agriculture, chemicals, automobile manufacture, and tourism. Our transportation system supports these industries and provides the necessary transportation choices that attract new businesses. All depend on the transportation network to move customers, employees, goods, and supplies. A strong transportation system - with a variety of modes such as rail, truck, barge, highway, and air - diversifies economic activity. It ensures that we are all well connected and contributes to the economic success of our state.*



# Our State's Population

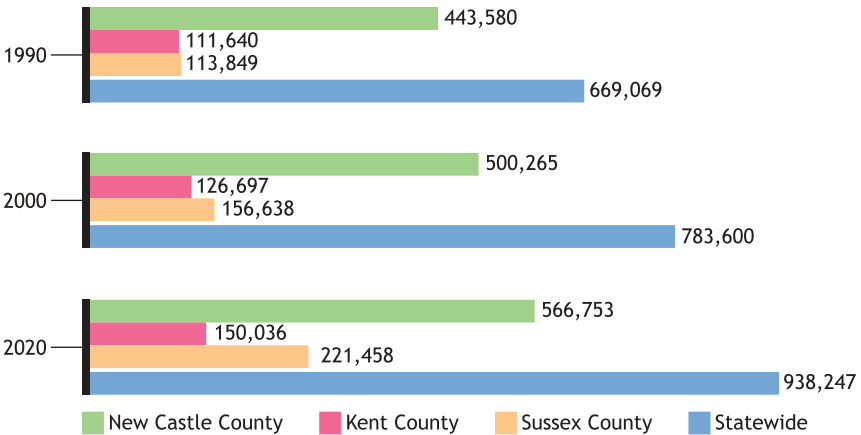
## Population

Delaware consists of 1,954 square miles of land tucked into the densely populated mid-Atlantic region. New Jersey, Pennsylvania, Maryland, and the Atlantic Ocean border our state.

In the 10-year period from 1990-2000, state population increased by more than 17% to 783,600 residents and is expected to rise to 938,247 by 2020. The following figures show a breakdown by county. In addition, from Memorial Day to Labor Day, seasonal residents and vacationers increase the population of Sussex County resort areas (Lewes-Rehoboth-Dewey-Bethany-Fenwick) to an estimated 5,456,000 total visitors, seasonal employees, and residents.

## Delaware Population - 1990-2020

Figure 1.1



Source: Center for Applied Demography & Survey Research, University of Delaware, US Bureau of Census (2000 Supplementary Survey), Delaware Population Consortium

# Introduction

## Getting to Work

Most Delawareans commute to work by car, truck, or van. Though firm figures from the 2000 Census were not available at time of publication, the 2000 Supplementary Census report estimates that of Delaware's 370,557 workers over age sixteen, 332,594 drive to work in a car, truck or van. 291,135 of them, or 78.6%, drive alone. Another 41,459 workers carpool; 11,080 take public transportation; 15,026 walk, bike, or take other means; and 11,857 work at home. Mean travel time to work is 22.5 minutes.



### How Delawareans Get to Work, School, etc. 1996-2000

Figure 1.2

	Percent	Percent	Percent	Percent
Driver	85.3	86.7	88.6	86.7
Passenger	10.2	9.9	10.7	9.7
Public Bus	1.2	0.9	1.1	1.1
Walked	1.8	1.6	1.4	0.9
School Bus	0.7	0.4	0.4	0.4
Bike	0.3	0.1	0.1	0.2
Other	0.5	0.3	0.4	0.3
	1996	1997	1998	1999

DeIDOT Household Survey includes all trips

	2000 Preliminary Data	Percent
Workers 16 Years and Over	370,557	100%
Drove Alone (Car, Truck or Van)	291,135	78.6%
Carpools (Car, Truck or Van)	41,459	11.2%
Public Transportation (Including Taxicab)	11,080	3.0%
Biked/Walked	9,752	2.6%
Other Means	5,274	1.4%
Worked at Home	11,857	3.2%
Mean Travel Time to Work (Minutes)	22.5	—

Census includes work trips only

Sources: DeIDOT Household Survey and Census 2000 Supplementary Survey, Bureau of the Census, U.S. Department of Commerce.

As the Census 2000 Preliminary Data show, with computers making work from home more practical, the number of Delawareans who work from home has increased from approximately 8,000 in 1990 to 12,000 in 2000.

Cecil County, Maryland and other out of state locations are home to a combined total of 46,669 workers in Kent, New Castle, and Sussex counties.

## Journey to Work by Origin & Destination, 1990

Figure 1.3

Place of Residence	Place of Work						Work at Home	Live in County Total
	Kent	New Castle	Sussex	Cecil, MD	Other			
Kent	43,512	4,307	3,462	29	1,834	1,553	54,697	
New Castle	2,028	196,960	196	2,104	22,043	4,313	227,644	
Sussex	3,745	362	39,207	9	6,348	2,114	51,785	
Cecil, MD	62	10,761	69	16,018	6,872	918	34,700	
Outside	1,812	29,849	4,116	3,233	n/a	n/a	39,010	
Work at Home	1,553	4,313	2,114	918	n/a	n/a	8,898	
Work in County Total	52,712	246,552	49,164	22,311	37,097	8,898	416,734	
	348,428			59,408				

Outside = Any place of residence other than those listed.

Other = Any place of work other than those listed.

Source: Center for Applied Demography & Survey Research, University of Delaware, US Bureau of Census (Last Update 1990)

\*U.S. Bureau of Census statistics are updated every 10 years. The latest Census was taken in 2000 and although some information was made available in 2001, release of most of Census 2000 information is scheduled for 2002.

# Moving People - Roadways

## Highway Transportation

### Vehicles

In 2000, there were an estimated 717,352 vehicles registered in Delaware. Of these, 632,338, or 88.1%, fell into the passenger car, station wagon, and commercial vehicle categories. From 1999 to 2000, motorcycle registrations increased 9.6% and station wagons added 6.2%. Passenger cars rose 2.3%, while commercial vehicles gained 2.7%, and farm truck registrations were down 3%.

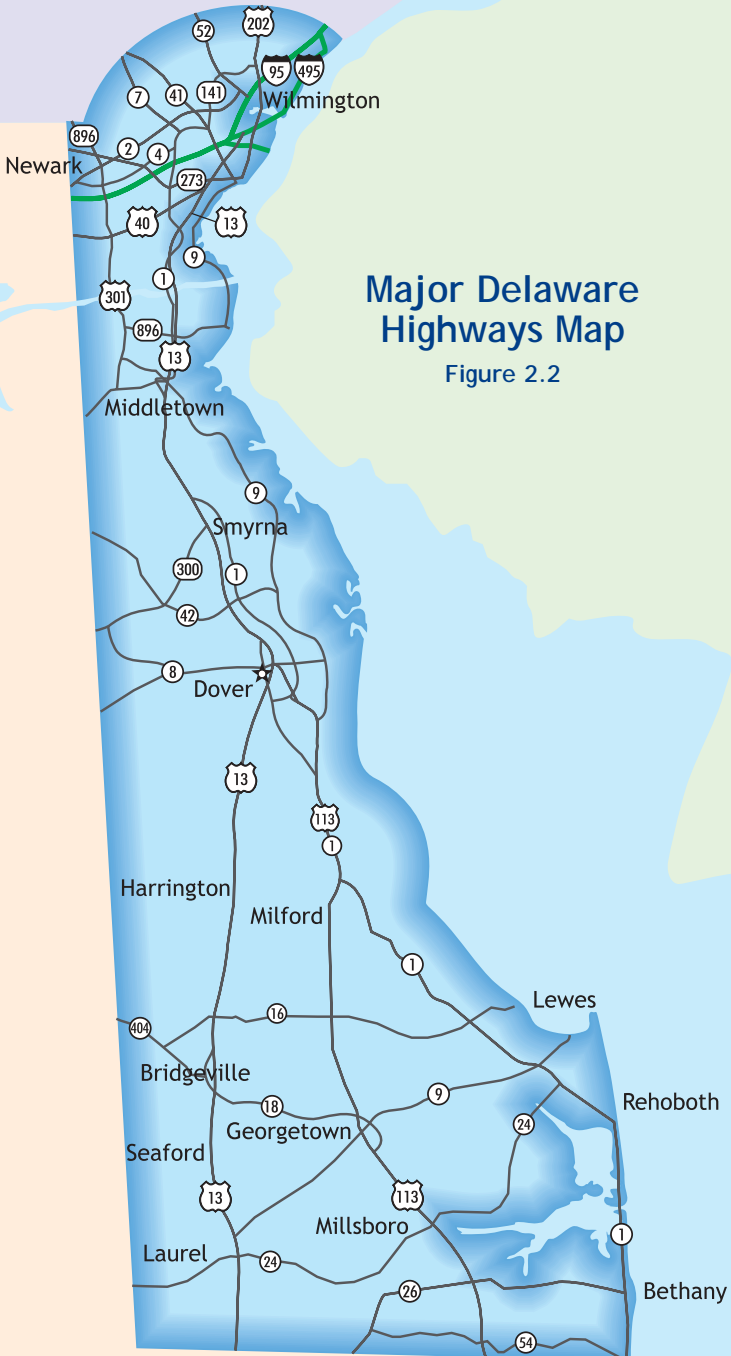
Total motor vehicle registration in Delaware increased by 67,326 vehicles, or approximately 10.4%, between 1996 and 2000.

### Motor Vehicle Registrations, 1996-2000

Figure 2.1

	1996	1997	1998	1999	2000
Passenger Cars	357,283	359,867	363,261	369,697	378,175
Station Wagon	98,329	104,298	110,563	116,914	124,177
Commercial	121,162	122,687	124,306	126,574	129,986
Farm Truck	3,289	3,227	3,309	2,967	2,875
Recreational	7,118	7,002	6,755	6,702	6,577
Trailer	47,484	48,588	50,392	53,093	55,853
Motorcycle	9,253	9,370	9,791	10,602	11,625
Other	6,108	6,296	9,602	7,781	8,084
Year Total	650,026	661,335	677,709	694,330	717,352

Source: Department of Public Safety, Division of Motor Vehicles



## Major Delaware Highways Map

Figure 2.2

# Moving People - Roadways

## Auto Ownership

Between 1990 and 2000, the number of Delaware households that owned one or more cars increased from 91.8% to 93.1%, and the number of households increased from 247,498 in 1990 to 295,258 in 2000, an increase of 19.3%.

Although the latest U.S. Census was taken in 2000, final results will not be available until 2002. Meanwhile, estimated data for some, but not all categories, has been released in the Census 2000 Supplementary Survey.

## Automobiles Per Household, 1990 & 2000

Figure 2.3

	Number of Households	Percent	Number of Households	Percent
None	20,295	8.2%	20,363	6.9%
One Auto	80,437	32.5%	97,585	33.1%
Two or More Autos	146,766	59.3%	177,310	60%
Total	247,498	100.0%	295,258	100.0%
	1990		2000	

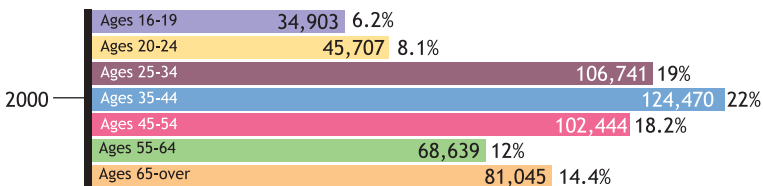
Sources: Bureau of the Census, U.S. Department of Commerce (1990) and Census 2000 Supplementary Survey, Bureau of the Census, U.S. Department of Commerce (2000)

## Licensed Drivers

There were 563,949 licensed drivers in Delaware in 2000. The chart below shows the driving-age population break-down of those holding driver's licenses in the state for that year.

## Licensed Drivers By Age, 2000

Figure 2.4



Total Licensed Drivers = 563,949 (percent change from '99: 2.2%)

Source: Department of Public Safety, Division of Motor Vehicles



According to the 2000 Annual Traffic Statistical Report published by the Delaware State Police, in 2000, licensed drivers increased by 2.2% from 1999, the population of the state increased by 1%, while the number of registered vehicles and the number of vehicle miles traveled (VMT) increased by 3%.

## Lane Mileage

The Delaware Department of Transportation is responsible for maintaining 89% of the 12,424 lane miles of roads in Delaware. Delaware is one of only a few states with this high percentage of public roads under Department of Transportation jurisdiction. The national average is approximately 20%. Municipalities are responsible for the other 11%. DeIDOT's jurisdiction includes everything from the I-95 interstate highway that runs through New Castle County, to residential streets, to dirt roads in rural areas. As the number of lane miles increase, maintenance and repair budgets also increase, because an expanding system calls for expanded support services. Twenty-five percent of Delaware's roads qualify for federal funds for rehabilitation and reconstruction projects.

### Lane Miles, as of 12/31/2000

Figure 2.5

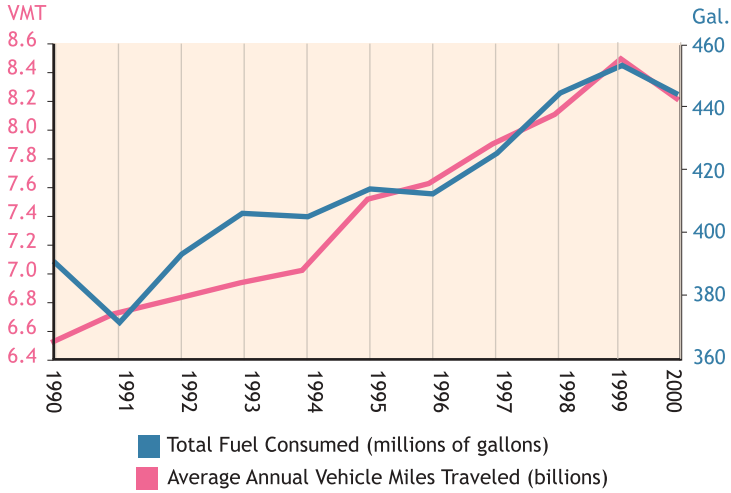
	Interstate	Other Freeways & Expressways	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector Local	Local	Total Lane Miles
New Castle	257.87	17.23	652.44	369.85	463.76	103.62	3074.14	4938.91
Kent	0	33.08	202.63	197.49	469.00	67.70	1872.34	2842.24
Sussex	0	0	417.93	173.45	629.88	162.90	3258.21	4642.37
Total	257.87	50.31	1273.00	740.79	1562.64	334.22	8204.69	12423.52

Source: DeIDOT Division of Planning

# Moving People - Roadways

## Fuel Consumed vs. Vehicle Miles Traveled, 1990-2000

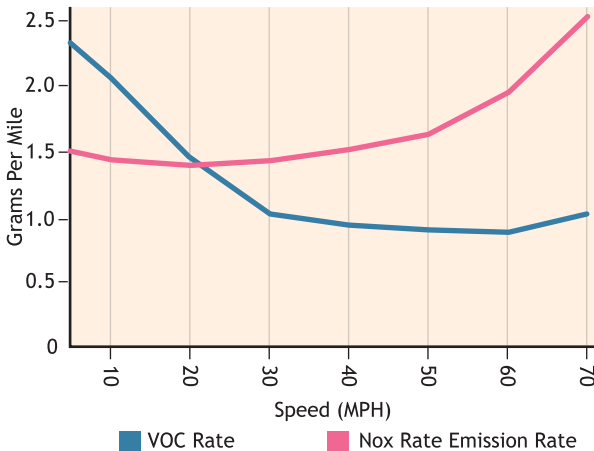
Figure 2.6



Source: DeIDOT Division of Planning & DeIDOT Motor Fuel Tax Administration

## The Ozone Challenge Traffic-Related Pollution

Figure 2.7



Source: DeIDOT Division of Planning

## Air Quality Overview - The Ozone Challenge

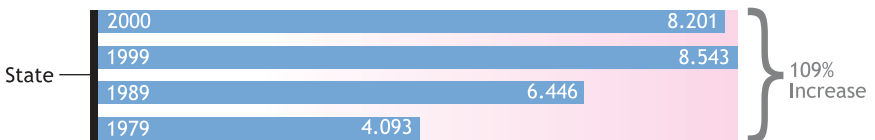
Solving traffic-related ozone pollution problems is something of a *Catch 22*. Slower moving traffic on congested local roads causes the release of volatile organic compounds (VOCs) such as hydrocarbons. Faster moving traffic on freeways and arterials causes release of nitrogen oxides. Peak and off-peak travel periods cause different types of emissions. Roadway improvements, which allow higher speeds and levels of service, decrease hydrocarbons but increase nitrogen. Delaware must meet mandated reductions, but hard decisions will have to be made to comply with EPA regulations.

## Vehicle Miles of Travel and Fuel Consumption

Vehicle miles traveled (VMT) represents the total miles traveled by all vehicles for a section of roadway in a given amount of time. Ten cars per hour on one mile of a one-lane road = a VMT of "10." If there were ten cars in each of four lanes on the one mile, the VMT would be 10 x 4 or "40." Within the last 20 years, the annual average number of vehicle miles traveled (VMT) on all state roadways increased approximately 109% from 4.093 billion in 1979 to 8.201 billion in 2000.

### Average Annual Vehicle Miles Traveled (in Billions) 1979-2000

Figure 2.8



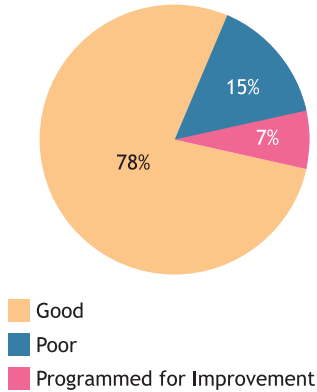
Source: DelDOT Division of Planning

Gasoline consumption dipped in 1991, possibly due to the introduction of more fuel-efficient engines. Though some vehicles have become more fuel-efficient, the gains made in fuel efficiency have been offset by the increase in vehicle miles traveled and the increased use of SUV's instead of cars.

# Moving People - Roadways

## Road Pavement Condition, 2001

Figure 2.9



Source: DeIDOT Division of Planning

### Pavement Conditions

DeIDOT's Pavement Management Section collects data on the condition of state and federally funded highways to establish priorities for rehabilitation. Prioritization is based on overall pavement condition, road functional class, average annual daily traffic, coordination with other construction projects, and the presence of schools, hospitals, transit routes, and other crucial public services. With the implementation of DeIDOT's new



Pavement Management System, which devotes an escalating share of road maintenance funds to preventive maintenance, as of 2001 over 78% of Delaware's roads are rated in good condition, with an additional 7% programmed for improvement (planned and funded).

## Traffic Safety

In recent years, the annual total number of crashes statewide has been rising, but the crash rate (per 100,000,000 Vehicle Miles Traveled) has shown a general downward trend. In 2000, there were 21,214 reported traffic crashes, of which 122 were fatal (with 131 deaths). 6,406 crashes resulted in personal injuries and 14,686 involved property damage. According to the Delaware State Police, crash data indicate that the leading causes of crashes are related to driver behavior. "Contributing factors" most frequently cited were inattention, failure to yield right-of-way, following too closely, or other improper driving. For fatal crashes, the most frequent contributing circumstances were alcohol use and failure to yield right-of-way.

### Statewide Crash & Injury Data, 1996-2000

Figure 2.10

	Total Number of Crashes	Number of Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Persons Killed	Persons Injured
1996	20,465	109	6,205	14,151	120	10,188
1997	20,363	125	6,428	13,810	148	10,607
1998	20,558	107	6,714	13,737	115	11,027
1999	20,646	94	6,372	14,180	104	10,526
2000	21,214	122	6,406	14,686	131	10,417

Source: Delaware State Police Annual Traffic Statistical Report

## Accidents by Type of Vehicle

Although more people are killed or injured in passenger car accidents, motorcycles have a higher rate of fatal crashes. The death rate for motorcyclists was 4.3 per 10,000 registrations – compared to a death rate of 1.81 for all vehicles registered. In fatal accidents involving all types of vehicles, 57 of the 199 drivers were age 15-24. 39 were age 25-34, and 47 were age 35-44 (see chart, page 20).

# Moving People - Roadways

## Accidents by Type of Vehicle, 2000

Figure 2.11

	Number of Vehicles	Vehicles in Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Passenger Car	29,981	143	9,425	20,413
Truck	7,961	45	2,311	5,605
Bus	163	1	57	105
School Bus	164	0	47	117
Motorcycle	196	5	152	39
Farm Tractor & Farm Equipment	36	0	10	26
Other or Not Stated	1,717	5	276	1,436
<b>Total</b>	<b>40,218</b>	<b>199</b>	<b>12,278</b>	<b>27,741</b>

Note: Truck=Pick-up Truck, Van/Panel Truck, Truck Tractor & Semi, 6-Wheel/10-Wheel Trucks  
 Source: Delaware State Police Annual Traffic Statistical Report, 2000

## Crashes by Age of Driver, 2000

Figure 2.12

	Drivers in Fatal Crashes	All Crashes
Under 15-19	29	4,703
20-24	28	4,936
25-34	39	7,672
35-44	47	7,541
45-54	21	5,105
55-64	12	2,792
65-74	9	1,615
75 & Older	9	1,097
Unknown	5	4,757
<b>Total Crashes</b>	<b>199</b>	<b>40,218</b>

Source: Delaware State Police Annual Traffic Statistical Report, 2000

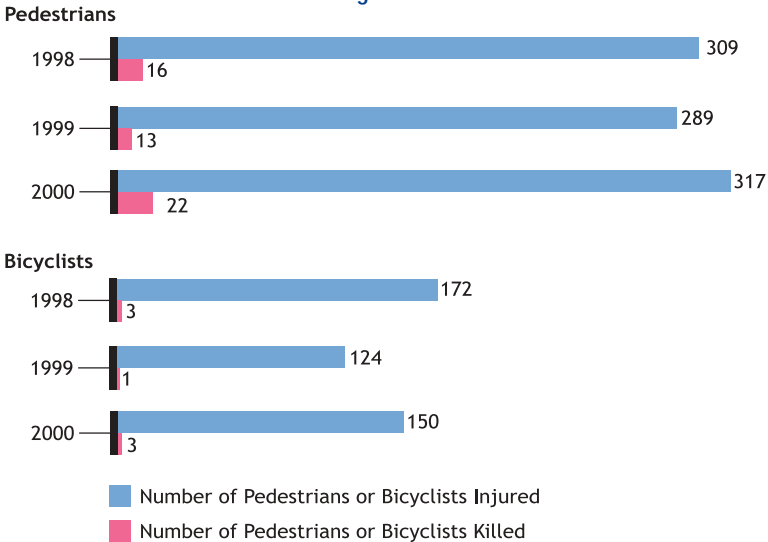
## Pedestrians/Bicyclists Involved in Accidents

The number of pedestrians killed in traffic crashes on Delaware highways in 2000 was 22, up from 13 in 1999. There were a total of 319 pedestrian/vehicle accidents in 2000 with 317 injuries. Of those accidents, 250 occurred in New Castle County, and 14 of the pedestrian fatalities occurred there. According to the Delaware State Police, 8 of the pedestrians killed had a positive Blood Alcohol Content (BAC). The highest number of injuries occurred in the 35-44 age group (49), while the 5-9 age group and the 25-34 age group each had 43 injuries.

In 2000, three bicyclists were killed (one in New Castle County and two in Sussex County) and 150 were injured. The greatest number of injuries (42) happened in the 10-14 age group. The second highest was 34 in the 5-9 age group.

## Pedestrian/Bicyclists Involved in Accidents, 1998-2000

Figure 2.13



Source: Delaware State Police Annual Traffic Statistical Report

# Moving People - Roadways

## Bridges

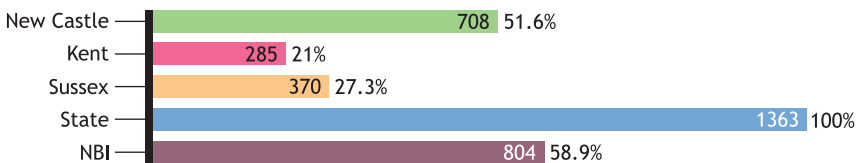
The Department of Transportation is responsible for maintaining 1,363 of Delaware's 1,437 bridges. Municipalities, railroads, the Delaware River & Bay Authority, private owners, and the US Army Corps of Engineers are responsible for maintaining the other 74. Bridge construction has occurred in cycles, with two especially active periods being the Depression era (1920-1934) and the Interstate era (1950-1979).



Approximately a third of all bridges in the state were built before 1950. Of those bridges, many are small, narrow, and obsolete. However, many are historic community assets and won't be replaced, but will be maintained to retain their character. Aging, plus increasing traffic volumes, is contributing to the deterioration of many of the large bridges built in the interstate era, increasing maintenance and rehabilitation costs. Any structure that is 20 feet or longer is included on the National Bridge Inventory (NBI). This federal program requires inspection on a two-year-cycle.

### State Maintained Bridges by County, 2001

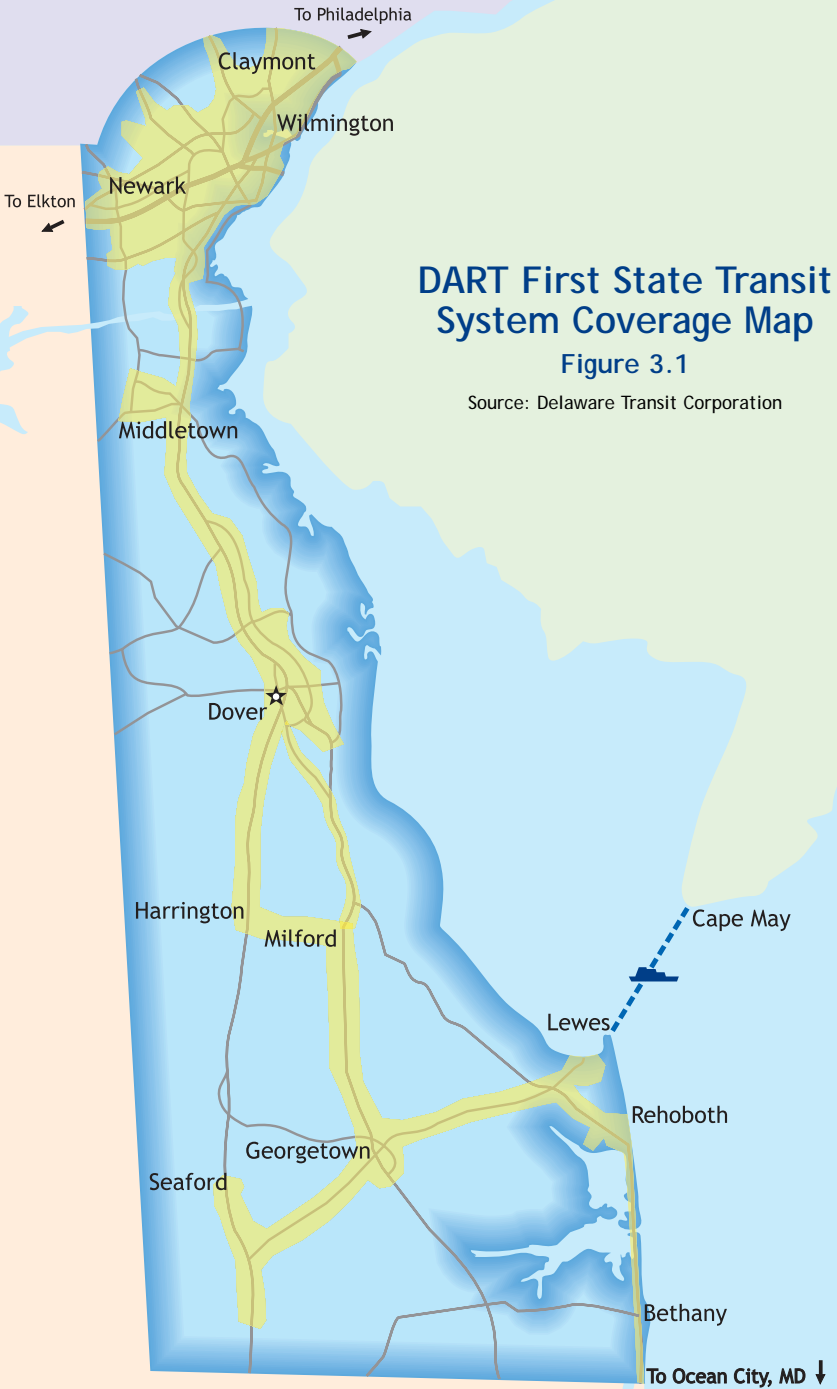
Figure 2.14



Source: DeIDOT Bridge Management Section



# Moving People - Transit



### DART First State Transit System Coverage Map

Figure 3.1

Source: Delaware Transit Corporation

# Moving People - Transit

## Transit

Public transit in Delaware includes a broad range of intermodal services, including local bus, express bus, intercounty bus, paratransit, subsidized taxi, and passenger rail.



### Statewide Bus Service

DART First State is operated by the Delaware Transit Corporation (DTC), an operating division of DelDOT. DART provides local bus services statewide, as well as Intercounty Route 301 connecting to New Castle and Kent County fixed route bus services and the Wilmington Train Station. New this year — DART offered Route 305 - Beach Connection,

with service from New Castle and Kent Counties to Rehoboth's Park & Ride on Saturdays, Sundays, and holidays throughout the summer. Since FY1996, DART First State annual statewide ridership has increased 24% from 7,444,758 to 9,260,336. Programs administered by DART First State include Get A Job · Get A Ride, Operation Lifesaver Delaware, SCAT (Senior Citizens Affordable Taxi), and more. (See list and phone numbers on page 73.)

### DART First State Buses - New Castle County

DART First State provides weekday bus service on over 40 fixed routes throughout northern New Castle County, with the majority serving downtown Wilmington and



its thousands of workers. Evening and Saturday service is available on many routes. Key hubs include the Wilmington Train Station, Rodney Square, and Christiana Mall. DART First State also operates the City Circuit, which provides service between the train station, Riverfront, and Rodney Square in downtown Wilmington; and the Churchmans

Shuttle which runs between Fairplay Station at Churchmans Crossing, Delaware Technical & Community College, Morgan Christiana Center, Christiana Hospital, and Christiana Mall. DTC maintains 30 Park & Ride and 8 Park & Pool lots in New Castle County. New Castle County has over 2,210 bus stops and 156 passenger shelters, and most buses are wheelchair accessible. Call one day in advance to schedule an accessible vehicle for your trip.

## DART First State Buses - Kent & Sussex Counties

Transit service in Kent County includes 12 weekday service bus routes in Dover and the surrounding area.

Sussex County has three routes operating year-round, with 7 additional routes operating 7-days-a-week from Memorial Day through Labor Day in the resort area, including service to Ocean City, MD. All buses in Kent and Sussex Counties are wheelchair accessible. DTC maintains 10 Park



& Ride and 6 Park & Pool lots in Kent and Sussex Counties. See page 33 for Park & Ride and Park & Pool locations statewide.

## Paratransit Services

DART First State provides statewide door-to-door bus service for individuals who are unable to use fixed route bus service due to age or disability. Certification, as defined by the Americans with Disabilities Act, is required to utilize the paratransit service. This service is also available to individuals in need of transportation to and from renal care centers for dialysis treatment. Reservations for paratransit service must be made at least one day in advance.

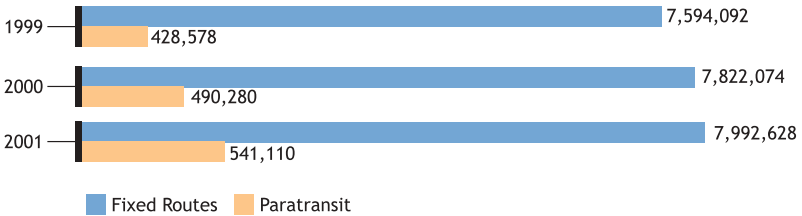


# Moving People - Transit



## DART First State Bus Ridership, FY 1999 - 2001

Figure 3.2



Source: Delaware Transit Corporation

### Other Local Buses

Other bus services downstate include the Delaware River & Bay Authority shuttle between the Cape May-Lewes Ferry and Rehoboth Beach, and the Jolly Trolley between Rehoboth Beach and Dewey Beach. Upstate, two Newark shuttle services include one operated by the University of Delaware, and Unicity, operated by the City of Newark.

### Private Carriers

Private carriers such as Greyhound, Peter Pan Trailways, and Carolina Trailways serve Wilmington, Dover, Georgetown, and beach areas, providing connections to various points on the east coast between New York and North Carolina.

# Moving People - Train



## Delaware Train Stations

Figure 3.3

## Passenger Rail Service

Amtrak provides intercity service along its Northeast Corridor. SEPTA, through a contract with DART First State, provides commuter train service through its R2 Regional Rail Route. The major rail passenger

facility hosting both services is the Wilmington Train Station, which was originally built in 1905 and extensively remodeled in 1984. It is the 9th busiest station in the Northeast Corridor and the 11th busiest station in the nation (out of over 525 stations). More people pass through the Wilmington station per year than live in the state. SEPTA commuter service is also available from Claymont, Fairplay Station at Churchmans Crossing, and Newark. All have accompanying Park & Ride facilities and bus transfer stops, and all are fully wheelchair accessible.

## Amtrak

Annual ridership (from all DE stations) for FY '01 was 719,753 passengers. Of the 115 trains that stop at the Wilmington station every weekday, 80 are Amtrak trains. One train northbound and one southbound per day also stop in Newark. Amtrak's high-speed *Acela Express* began serving Wilmington in December 2000, on its route between Washington and Boston. Currently, there are 20 Acela Express trains serving Wilmington daily, 10 northbound and 10 southbound.



# Moving People - Train

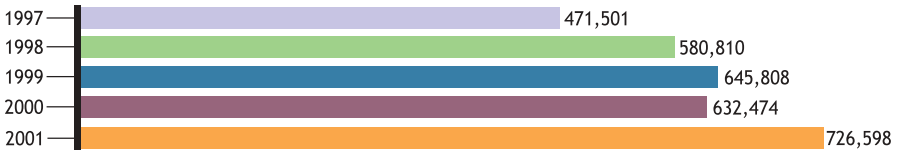
## SEPTA

With the opening of the Newark Train Station in 1997 and Fairplay Station at Churchmans Crossing in 2000, DART First State's SEPTA R2 train ridership increased sharply. Since 1997, R2 ridership has increased by 255,097 passengers, or 54%.



## DART First State's SEPTA R2 Annual Ridership, FY 1997-2001

Figure 3.4



Source: Delaware Transit Corporation



Wilmington Train Station



Fairplay Station at Churchmans Crossing

# Moving People - Walking/Biking

## Walking

Sidewalks and other pedestrian-friendly amenities are common in Delaware's cities and towns, but far less common in outlying suburbs and unincorporated areas. As with biking, Delawareans enjoy walking, jogging, and running as popular forms of recreation and exercise, but in 1990, only 12,862 (3.8%) of Delaware workers walked to work. Pedestrians and bike riders may be deterred by the real and perceived threat of accidents involving vehicles, by a lack of sidewalks, or by long distances.

U.S. Bureau of Census statistics are updated every 10 years. The latest Census was taken in 2000 and although some information was made available in 2001, the release of most Census 2000 information is scheduled for 2002.

## Walking as Primary Way to Commute, 1980 vs. 1990

Figure 3.5

	Total Workers	Number Who Walk	Total Workers	Number Who Walk
New Castle	178,045	8,860	227,644	9,702
Kent	42,822	2,414	54,697	1,711
Sussex	41,136	1,727	51,785	1,449
Total	262,003	13,001	334,126	12,862
	1980		1990	

Source: Bureau of the Census, U.S. Department of Commerce (Last Update, 1990)





New Jersey

Pennsylvania

Maryland

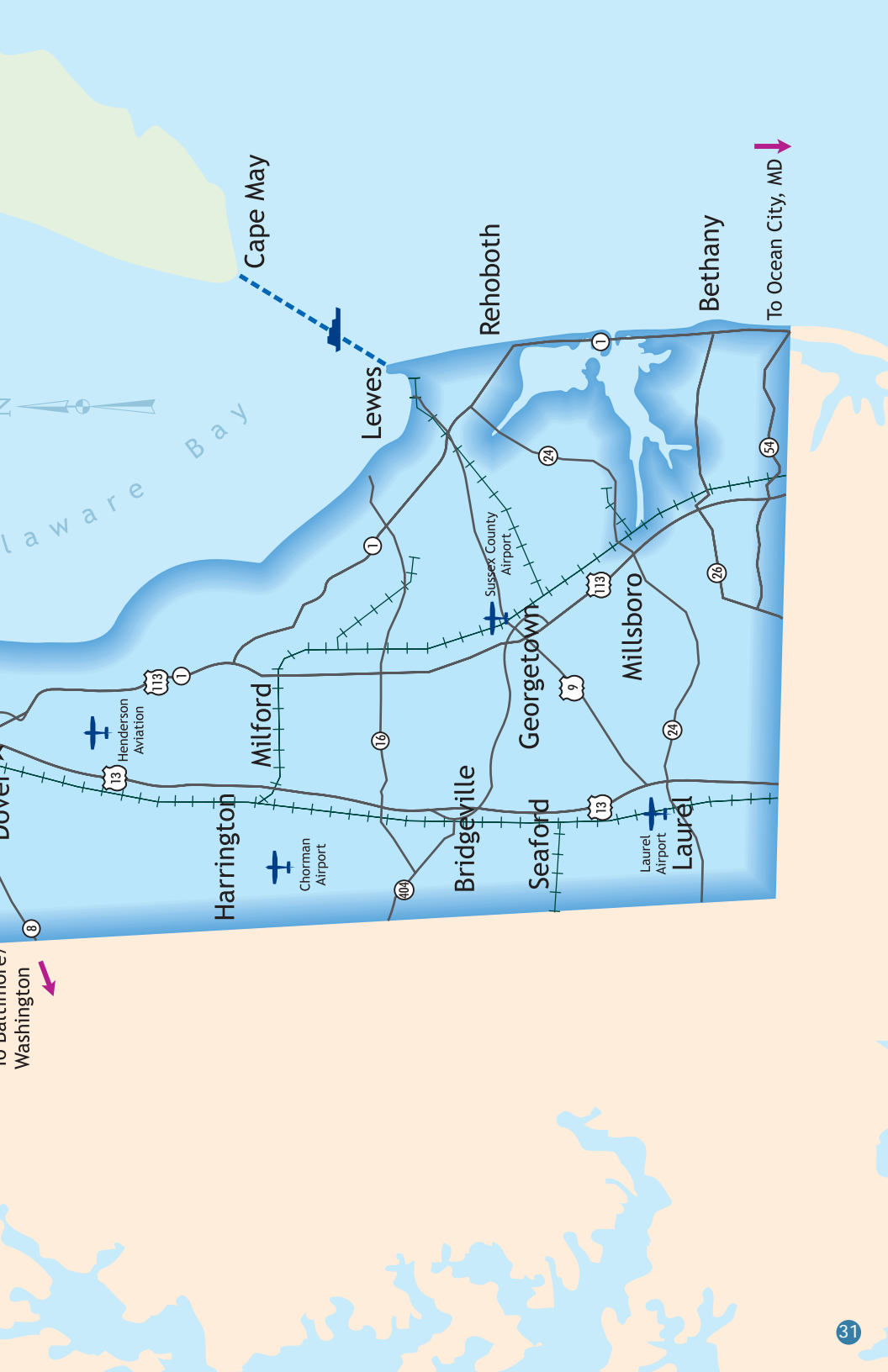
# Regional Map of Delaware Transportation

**Legend**

- Interstate (Green line with shield icon)
- Principal Highway (Blue line with shield icon)
- Rail Line (Black line with cross-ticks)
- Amtrak Northeast Corridor (Yellow line)
- SEPTA R2 Commuter Rail Service (Pink line)
- Airport (Blue airplane icon)
- Port (Blue ship icon)
- Ferry (Blue boat icon)

Note: Transit system coverage is shown on page 23 map.





to Baltimore/  
Washington

To Ocean City, MD

# Park & Ride/Rideshare

## Park & Ride/Pool Locations

Park & Ride lots (which are served by transit) and Park & Pool lots provide convenient parking and a place where commuters may meet carpools or vanpools, or use a variety of modes of transportation such as trains, buses, or shuttles. The Delaware Transit Corporation (DTC) administers 54 of these lots and also offers free access to secured bicycle lockers at various Park & Rides throughout New Castle County (see keys on map). Commuters can call 1-800-652-DART or visit [www.DartFirstState.com](http://www.DartFirstState.com) for Park & Ride/Pool locations near them and for information on bicycle lockers.

## Ridesharing

RideShare Delaware is a free public service of DART First State and is administered by Delaware's Transportation Management Association, TMA Delaware. The RideShare Delaware program matches individuals traveling to worksites in Delaware who want to share the ride.

Delaware employees who rideshare to work via carpool, vanpool, or public transit, are eligible for RideShare Delaware's "Home Free Guarantee" benefit. The benefit ensures program participants a free ride home from work, via taxi or rental car, in the event of an emergency during the workday. Call 1-888-RIDE-MATCH or visit [www.ridesharedelaware.org](http://www.ridesharedelaware.org) to learn more.

In addition to administering RideShare Delaware for DART First State, TMA Delaware is a clearinghouse of information and is working with over 60 large businesses in Delaware to develop work site transportation plans and other transportation solutions. Call 302-658-9001.



# Park & Ride and Park & Pool Locations

Figure 3.6



- |  |                                     |
|--|-------------------------------------|
| 1 Claymont Overflow Parking                | 28 I-95 Service Plaza               |
| 2 Claymont Train Station                   | 29 Christiana Mall                  |
| 3 Tri-State Mall                           | 30 Routes 273 and 7                 |
| 4 Naamans and Carpenter Roads              | 31 Peoples Plaza                    |
| 5 Trinity Presbyterian Church              | 32 Tybouts Corner                   |
| 6 Faith Presbyterian Church                | 33 Odessa Park & Ride               |
| 7 Concord Presbyterian Church              | 34 Old Boyd's Corner                |
| 8 Aldersgate United Methodist Church       | 35 New Boyd's Corner Park & Ride    |
| 9 Lutheran Church of the Good Shepherd     | 36 Bethesda United Methodist Church |
| 10 North Baptist Church                    | 37 South Odessa                     |
| 11 Brandywine Town Center                  | 38 Pine Tree Corner                 |
| 12 Lower Brandywine Presbyterian Church    | 39 Smyrna Rest Stop                 |
| 13 Red Clay School District Rts. 52 & 100  | 40 Scarborough Road Park & Ride     |
| 14 Aaron's Rental Purchase                 | 41 Delaware Agriculture Museum      |
| 15 First Union Bank - Hockessin            | 42 Water Street Transfer Center     |
| 16 Hockessin Memorial Hall                 | 43 St. Andrew's Lutheran Church     |
| 17 Lantana Square                          | 44 Holy Cross Church                |
| 18 Faith Baptist Church                    | 45 Faith Community Church           |
| 19 Skyline United Methodist Church         | 46 Shore Stop                       |
| 20 Fairplay Station at Churchmans Crossing | 47 Harrington Moose Lodge           |
| 21 Delcastle Recreation Center             | 48 Milford Bowling Lanes            |
| 22 Brandywine Springs Park                 | 49 Seaford Church of Christ         |
| 23 Prices Corner                           | 50 First Baptist Church             |
| 24 Greenbank Park                          | 51 DTCC Georgetown                  |
| 25 Newark Train Station                    | 52 St. Jude's Catholic Church       |
| 26 Scottfield                              | 53 Rehoboth Park & Ride             |
| 27 Route 896 and Route 4                   | 54 Lutheran Church of Our Savior    |

**Legend**

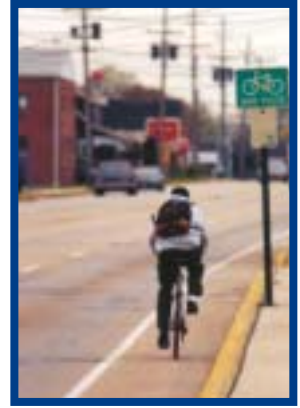
- Park & Ride
- Park & Pool
- Bike Locker

Source:  
Delaware Transit Corporation

# Moving People - Biking

## Biking

Additional bike lanes, paved shoulders, lockers, bike paths, trails, and greenways are making it increasingly easier to travel by bicycle in Delaware. The Department of Transportation has installed high-security clamp-type bike racks at seven park-and-ride lots in the state. Some employers are beginning to do the same. However, there is still much to be done. Although bikes are popular among children and teens for recreation and transportation, and are popular with adults as a form of exercise, in 1990, less than 1% of workers in Delaware used bikes for commuting to work.



## Bikes as Primary Way to Commute, 1980 vs. 1990

Figure 3.7

	Total Workers	Number	Percent	Total Workers	Number	Percent
New Castle	178,045	877	0.5%	227,644	852	0.4%
Kent	42,822	331	0.8%	54,697	137	0.3%
Sussex	41,136	167	0.4%	51,785	142	0.3%
Total	262,003	1,375	0.5%	334,126	1,131	0.3%
	1980			1990		
	New Castle		Kent	Sussex		Total

Source: Bureau of the Census, U.S. Department of Commerce (Last Update, 1990)

# Moving People & Goods -Aviation

## Aviation

Most of Delaware's 11 public use aviation facilities concentrate on business and recreational flights by individual or corporate owners. In recent years, New Castle Airport accounted for almost half of the non-military flight activity in the state, and up to 63% of the flights were private business-related. Most commercial passengers continue to fly out of nearby Philadelphia International Airport or Baltimore-Washington International Airport.

The majority of aviation facilities in Delaware are private airports, but New Castle Airport, Sussex County Airport, Delaware Airpark, and the Dover Air Force Base Civil Air Terminal are publicly-owned aviation facilities. DelDOT has recently purchased Delaware Airpark near Cheswold, just north of Dover, the state's capital, and has also upgraded aircraft parking at the Dover Air Force Base Civil Air Terminal to provide easier access to the civilian public. The Delaware River & Bay Authority operates the New Castle Airport, Delaware Airpark, and the Civil Air Terminal. As of September 11, 2001, the Civil Air Terminal is closed indefinitely due to security concerns.



# Moving People & Goods - Aviation

## Flight Activity at Public Airports, 2001 vs. 2015

Figure 3.8

	Flights	Capacity	Percent Business	Projected Flights	Percent of Capacity
New Castle Airport	130,021	230,400	63%	189,700	82%
Summit Airport	40,650	172,900	30%	54,600	32%
Smyrna Airport	2,925	74,000	5%	3,500	5%
Chandelle Estates Airport	10,800	45,200	16%	2,500	6%
Delaware Airpark	36,000	145,500	38%	40,500	28%
Jenkins Airport	2,500	65,200	25%	2,900	4%
Civil Air Terminal, Dover AFB	450*	13,500	100%	na	na
Chorman Airport	2,025	45,000	22%	3,300	7%
Henderson Aviation	1,800	65,200	10%	4,500	7%
Laurel Airport	7,750	54,000	48%	8,600	16%
Sussex County Airport	20,900	171,000	38%	56,500	33%
<b>TOTAL</b>	<b>255,821</b>			<b>366,600</b>	
	2001			2015	

\*Reflects numbers up to 9/11/01

Source: DeIDOT Division of Planning, Office of Aeronautics

### New Castle Airport

The New Castle Airport is the largest civilian airport in the state, with two runways over 7,000 feet long and facilities that cover 1,100 acres. The airport includes significant hangar and aviation-related business rental space, as well as a flight school, aircraft rentals, and repair services. The Delaware River and Bay Authority manages this airport.



---

## Dover Air Force Base

This U.S. military base is the largest aerial port facility on the East Coast, and it is an important part of the economy of Kent County. The base houses C-5A transport planes that play a major role in overseas military and humanitarian support operations.

## Dover AFB Civil Air Terminal

A joint use agreement between the base and the Department of Transportation allows private aircraft to use an adjacent civil air terminal. A recent improvement has increased the paved ramp area from one-half acre to 6.5 acres. The Delaware River & Bay Authority operates this facility.

Due to military security concerns, the CAT has been closed to civilian air traffic until further notice.

## Sussex County Airport

Sussex County Airport is owned and operated by the county and is located just east of Georgetown, the county seat. The airport serves general aviation, corporate aviation, military, and state police. It is home to the installation facility for PATS, Inc. of Columbia, MD. PATS designs, manufactures, and installs auxiliary fuel tanks, flight deck instrumentation, and other equipment for the commercial, VIP, and corporate aircraft market, including Boeing Business Jet, Bombardier, Raytheon, Cessna, and Gulfstream.

## Delaware Airpark

DeIDOT recently purchased this facility in Cheswold, which is operated by the Delaware River & Bay Authority. The airport features a 3,582-foot-long by 50-foot-wide runway system and is the only publicly-owned general aviation airport in Kent County. The airport serves general aviation, corporate aviation, and the Delaware State University aviation flight training program.

# Moving People & Goods - Nautical

## Nautical

### Cape May - Lewes Ferry

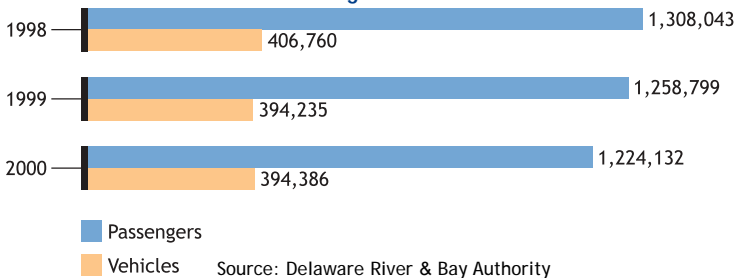
Delaware's largest ferry operates along a 17-mile route across the Delaware Bay between Lewes, Delaware and Cape May, New Jersey. Owned and operated by the Delaware River and Bay Authority, it serves as a tourist and recreational attraction, as well as an alternative to the Delaware Memorial Bridge for motorists traveling the Delmarva Peninsula.



Each ferry in the five-vessel fleet can carry up to 100 cars and 800 passengers. Ferries make 11 to 17 trips daily during the summer and 5 to 11 trips daily during the rest of the year. From 1980 to 1997 ferry passengers increased 88% and vehicles increased 74%. Much of that gain followed extensive renovation of the fleet, which began in 1993. In 1999 and again in 2000, passenger ridership decreased slightly, (a loss of 83,911 trips from the high of 1,308,043 passenger trips in 1998). Vehicle trips also declined slightly from 1998 to 1999, but were almost unchanged in 2000.

### Cape May-Lewes Ferry Annual Ridership, 1998 - 2000

Figure 3.9



### Woodland Ferry

This ferry across the Nanticoke River between Laurel and Federalsburg, Maryland has been operating since 1793, and is one of the few cable-run ferries on the East Coast. Owned and operated by DelDOT, the ferry holds three cars or one tractor trailer and provides free service for local and tourist traffic during daylight hours, conditions permitting.



# Moving Goods

U.S. Department of Commerce statistics are updated every 10 years. The latest Transportation, Truck Inventory and Use Survey was taken in 1992, and the Commodity Flow Survey was taken in 1997. Other information has been updated to the latest available year.

## Introduction

The 1997 Commodity Flow Survey by the US Department of Transportation measured Delaware goods shipments valuing nearly \$17 billion and weighing 24 million tons. Approximately 30.9% of goods by value of all shipments were between places less than 50 miles apart. Proximity to Pennsylvania, New Jersey, Maryland, New York, and Virginia make these states important destinations for Delaware goods.



A majority of shipments were moved by truck (73.3% by value and 64.6% by weight). Rail accounted for about 2.8% of the value and 4.2% of the weight of shipments. Another 18.7% of the value of shipments was moved by an intermodal combination of truck, rail, air, and/or water.

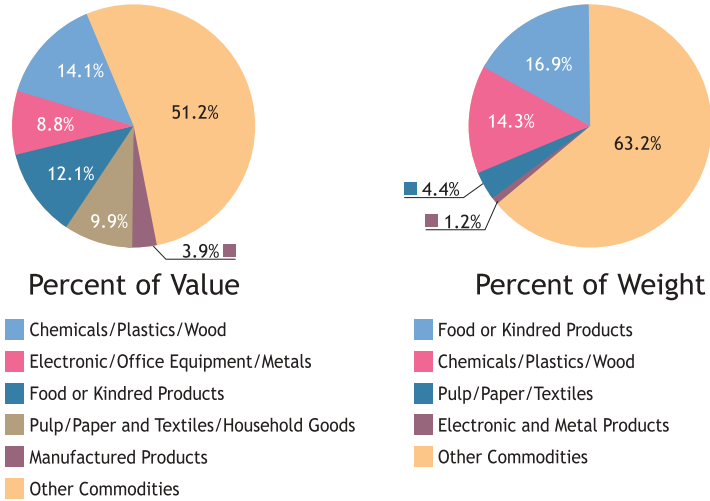
The main commodities shipped from Delaware by value were chemicals/plastic and wood, food, electronic and office equipment, pulp/paper and textiles. By weight, primary commodities include food and chemicals/plastic and wood.



# Moving Goods

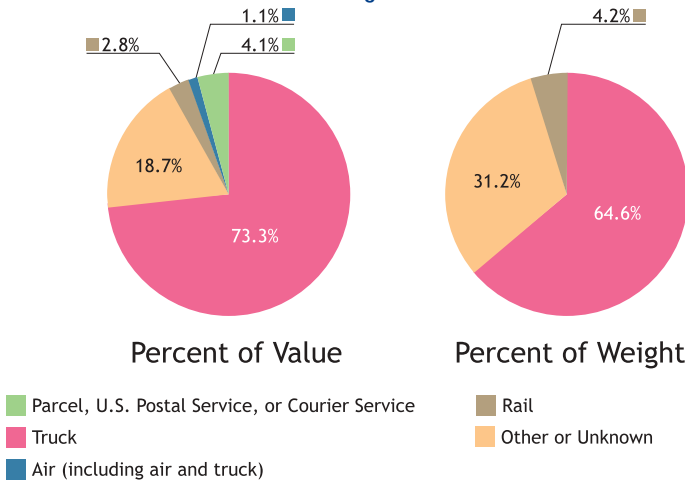
## Shipments Originating in Delaware - by Commodity, 1997

Figure 4.1



## Shipments Originating in Delaware - by Mode, 1997

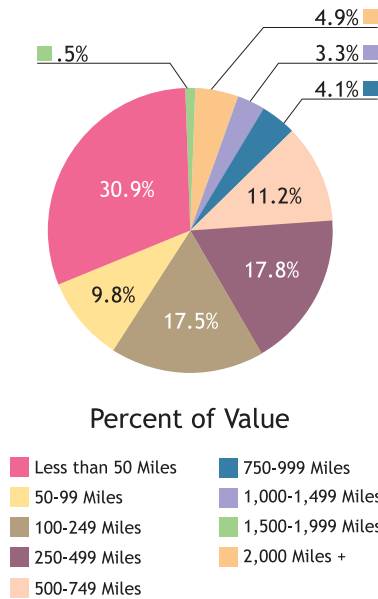
Figure 4.2



Source: US Department of Commerce, Bureau of Census, 1997 Commodity Flow Survey

## Shipments Originating in Delaware - by Distance, 1997

Figure 4.3



Source: US Department of Commerce, Bureau of Census, 1997 Commodity Flow Survey

## Truck Freight

Trucks play an important role in commerce in Delaware. Local commercial carriers serve automotive, agricultural, chemical, and other industries delivering an endless variety of goods, parcels, and mail—both in and out-of-state—to wholesalers, retailers, and residents. Delaware's sizeable poultry  
*(continued next page)*



# Moving Goods

industry depends on trucks to get chickens to market quickly and trucks are important in providing just-in-time parts inventory to automobile manufacturing plants. Light trucks (under 10,000 pounds gross vehicle weight) are used extensively in Delaware's construction, agricultural, and service industries.

Of the 717,352 vehicles registered in Delaware in 2000, 7,894 were classified as commercial vehicles (above 26,000 pounds gross weight). The number of drivers holding commercial licenses increased 2.5% from 1999 to 2000.

## Licensed Commercial Drivers, 1996-2000

Figure 4.4

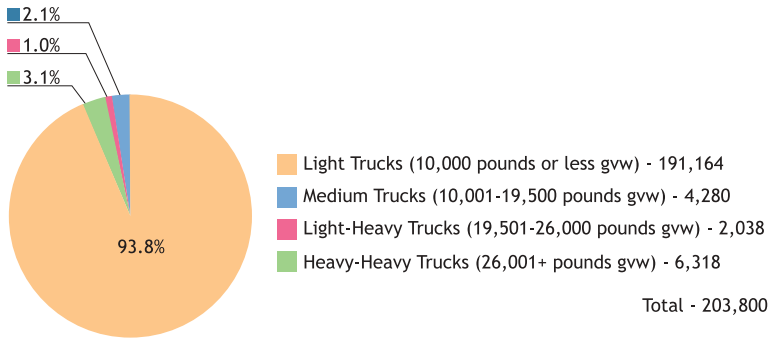


Source: Delaware State Police Annual Traffic Statistical Report



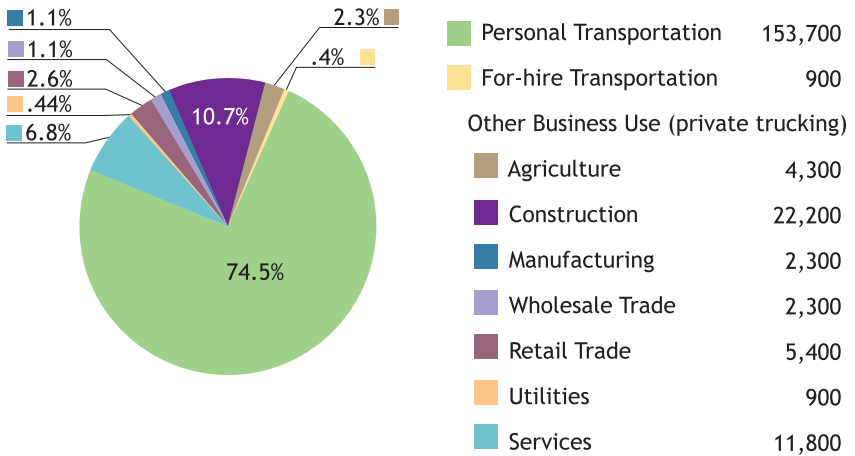
## Trucks Registered in DE - by Size, 1997

Figure 4.5



## Trucks Registered in DE - by Major Use, 1997

Figure 4.6



Source: US Department of Commerce, Bureau of Census, 1997 Census of Transportation, Truck Inventory and Use Survey

# Moving Goods

## Truck Accident Rates

According to the Delaware State Police, in 2000 there were 7,961 truck-related traffic crashes, involving 6-wheel and 10-wheel trucks, truck tractors and semi, van/panel trucks, and pick up trucks. Of those, less than 1% (45 crashes) were fatal, 29% (2,311 crashes) involved personal injuries, and 70% (5,605) resulted in property damage.

## Type of Truck in Crash, 2000

Figure 4.7

	Total Number of Crashes	Number of Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Pick-up Truck	4,216	11	1,252	2,953
Van/Panel Truck	2,529	15	749	1,765
Truck Tractor & Semi	631	10	173	448
6-Wheel/10-Wheel Truck	585	9	137	439
Total	7,961	45	2,311	5,605
	Statewide			
All Other Types of Vehicles	32,257	154	9,967	22,136

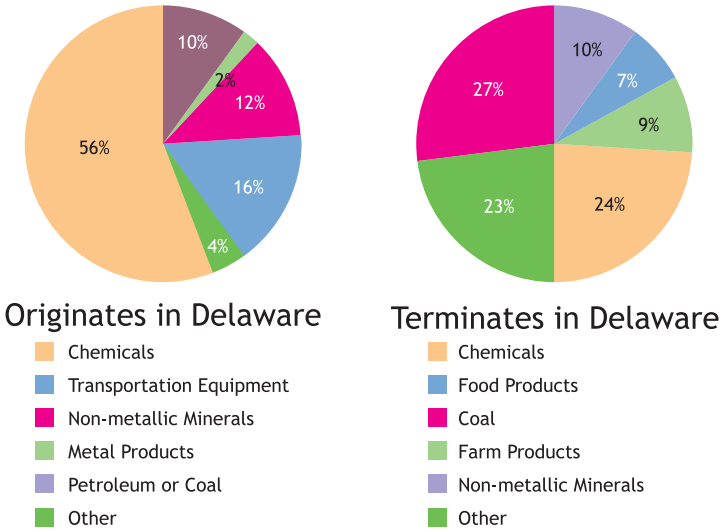
Source: Delaware State Police Annual Traffic Statistical Report, 2000.



# Rail Freight

## Rail Shipments To & From Delaware, 1999

Figure 4.8



Source: Association of American Railroads

Delaware has 261 miles of active rail lines, over which six companies provide rail freight service. These include CSX, Norfolk Southern, and four short-line railroads. Norfolk Southern took over lines formerly owned by Conrail in 1999. Traffic is of two types: local traffic that either originates or terminates in the state, and bridge traffic, which is through traffic that neither originates in or terminates in Delaware.

Three commodities make up 75% of local rail traffic: automobiles (including parts), coal, and chemicals. The automobile industry is a major customer of local rail freight traffic in Delaware. Chrysler and GM production plants generate outbound traffic, as does the Port of Wilmington, but most auto carloads are inbound, destined for parts

# Moving Goods

distribution. Most coal traffic goes to coal-fired electric power plants. Autos and chemicals represent the largest outbound shipments.

Bridge, or pass-through traffic, includes freight shipped on CSX, Norfolk Southern, Amtrak, and Brandywine Valley Railroad connections. CSX carries over 20 million gross ton-miles annually to and through Delaware. Brandywine Valley Railroad transports 1,400 carloads carrying 125,000 tons per year of scrap steel, finished steel plates, grain, corn/vegetable oil, propane gas, and finished lumber.

Rail freight represents an under-utilized resource in Delaware, with the volume of service consistently below the capacity of rail lines. In recent years, local traffic has accounted for about 100,000 carloads annually, while bridge traffic generated 200,000 carloads. See pages 30-31 for a map of rail lines.





# Shipping

The Delaware Bay extends from the Atlantic Ocean to a point near Augustine Beach, Delaware, where the Delaware River begins. Considered as a whole, the Bay/River is the world's largest freshwater port. It is part of the Intracoastal Waterway which runs along the entire eastern seaboard. It carries about 2,700 ships per year to and from several port facilities and private industries, particularly oil refineries.

Eighty-eight percent of the 17,229,852 tons of waterborne freight shipped from Delaware in 2000 was destined for Mid-Atlantic states, including 2,840,619 tons shipped intrastate. Pennsylvania ports received the greatest share (47.8%), followed by New Jersey and New York. Other shipments originating from Delaware included 1,228,458 tons to New England states and 721,447 tons to Canada and other foreign countries. Delaware received 24,410,928 tons, with 4,208,018 tons from domestic markets and 20,202,910 tons from foreign markets. (see next page)

## Waterborne Shipments Originating in DE, 1999

Figure 4.9

Destination		Weight in Tons	Percent
Mid Atlantic States	Delaware	2,840,619	16.5
	Maryland	241,211	1.4
	New Jersey	2,953,098	17.1
	New York	792,069	4.6
	Pennsylvania	8,245,261	47.8
	Virginia	207,689	1.2
<b>Subtotals</b>		<b>15,279,947</b>	<b>88.6</b>
New England	Connecticut	448,263	2.6
	Maine	30,518	.2
	Massachusetts	51,633	.3
	Rhode Island	698,044	4.1
<b>Subtotals</b>		<b>1,228,458</b>	<b>7.2</b>
Other	Canada	48,835	0.3
	Other Foreign Countries	672,612	3.9
<b>Subtotals</b>		<b>721,447</b>	<b>4.2</b>
<b>Total Tons Originating in Delaware</b>		<b>17,229,852</b>	<b>100</b>

Source: US Army Corps of Engineers, Waterborne Commerce Statistics Center

# Moving Goods

## Port of Wilmington

The Port of Wilmington is owned by the State of Delaware and operated by the Diamond State Port Corporation. In 2000, over 13 million tons of goods were shipped through. In terms of sheer tonnage, liquid bulk petroleum (1.9 million tons) and bananas and other tropical fruits (1,056,000 tons) are the top imports to the port.



The Port of Wilmington occupies a unique place among East Coast ports. While not as large as many neighboring ports, it has developed several niche markets, most notable being the importation of fresh fruits and juice concentrates. Other important commodities shipped through the port are automobiles, metallic ores, and minerals. There are many specialized facilities at the port to accommodate these items. Completion of a new dedicated auto berth project is scheduled for late summer 2002.

Shipments to Delaware originate from countries spread throughout the globe. Exports take goods to places like the Middle East, Europe, Australia, Brazil, South Africa, and Central America.

## Waterborne Shipments Received (tons), 2000

Figure 4.10



Source: US Army Corps of Engineers, Waterborne Commerce Statistics Center

# Leading Import/Export Commodities, Port of Wilmington 2000

Figure 4.11

	Commodity	Origin	Quantity
Imports	Bananas & Tropical Fruit	Central & South America	1,056,000 tons
	Deciduous Fruit	Chile & New Zealand	250,000 tons
	Apple Juice Concentrate	Argentina	65,000 tons
	Orange Juice Concentrate	Brazil & Central America	90,000 tons
	Frozen Meat & Seafood	New Zealand & Australia	105,000 tons
	Volkswagen & Audi	Germany & Mexico	87,000 units
	Steel	Europe	256,000 tons
	Lumber	Canada	75,000 tons
	Sodium Nitrate	Chile	56,000 tons
	Gypsum	Canada	393,000 tons
	Salt	N/A	152,000 tons
	Liquid Bulk Fuel Oil & Petroleum Products	N/A	1.9 million tons
	Exports	GM & Ford	Middle East
Pre-Owned Vehicles		Central America	8,000 units
Kraft Linerboard		Central America	60,000 tons
Petrol Coke		Europe	300,000 tons

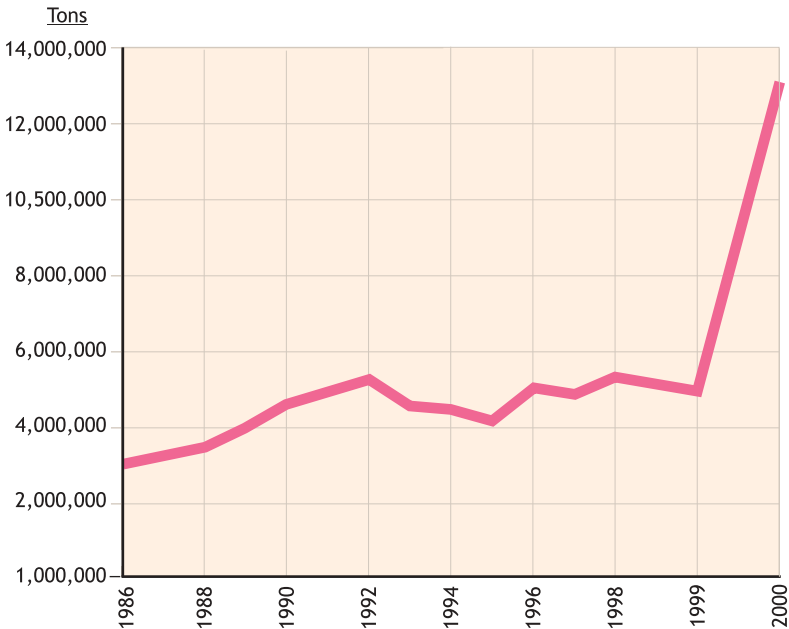
Source: Port of Wilmington, DE, Port Traffic Overview, 2000



# Moving Goods

## Annual Tonnage, Port of Wilmington, (Imports & Exports), 1986 - 2000

Figure 4.12



Source: Trust Fund Administrator, DeIDOT/Diamond State Port Corporation, Port of Wilmington, DE, Port Traffic Overview, 2000

\* Note: Significant rise in 2000 is due to the inclusion of Crude Petroleum in '00 reporting.

## Chesapeake and Delaware Canal

Owned by the federal government, the Chesapeake & Delaware Canal runs 13.6 miles and connects the Delaware Bay near Delaware City with the Chesapeake Bay in Maryland. Constructed in 1829, and dredged to a depth of 35 feet in 1981, it saves an estimated 285 miles from the trip from Baltimore to Philadelphia around the Delmarva

Peninsula to the Delaware Bay. Though the canal carries about 1,400 ships and 4,000 barges/tugboats annually, Delaware's main interest is in maintaining the movement of roadway and rail freight traffic over the canal. Four roadways and one rail bridge now cross the canal in Delaware and are maintained by the U.S. Army Corps of Engineers.

## Air Freight

Air freight has the smallest market share of goods movement in Delaware, but its potential is great, since air freight is well-suited for carrying high-value, low-volume goods. With the exception of Dover Air Force Base, most airports in the state service corporate and pleasure-related aircraft. However, the New Castle Airport averages 2.25 freight flights per day and moves over 600 tons of goods annually, carrying primarily automotive parts for nearby Chrysler and General Motors plants.

New Castle Airport facilities cover 1,100 acres and include three runways, two of which are over 7,000 feet long, as well as 5,000 square feet of storage space. It provides 24-hour-a-day, 7-day services for aircraft up to and including DC-8s, plus complete ground transportation services, loading/off-loading, fueling and ground handling. (See pages 30-31 of this booklet for a map of airports.)

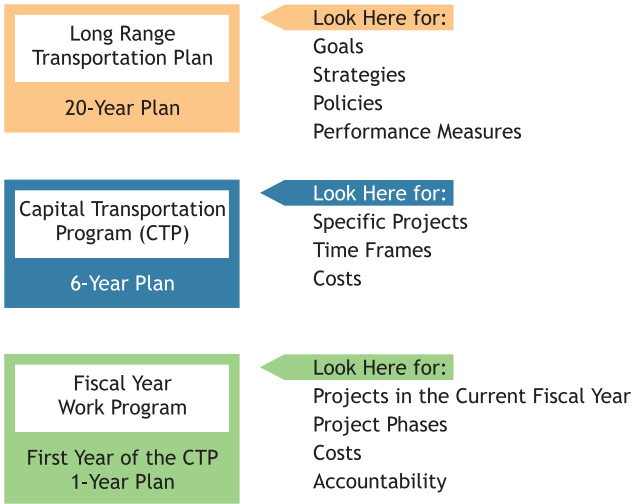


# Transportation Planning

## Statewide Planning

### Statewide Planning

Figure 5.1



Source: DelDOT Division of Planning

### Long-Range Transportation Plan: Strategies & Policies to 2020

Delaware's Statewide Long-Range Transportation Plan, adopted in 1997, sets goals, strategies, policies, and actions through the year 2020. All transportation investments are measured against this plan.

The goals of the Statewide Long-Range Transportation Plan are:

- To provide a safe transportation system that sustains or improves access and mobility.
- To achieve efficient transportation system operations and investments.
- To support the State's economic well being, while remaining sensitive to environmental needs and issues.

The plan is currently being updated to ensure that it supports the statewide strategies for policies and spending from Governor Minner's "Livable Delaware" Initiatives.

## Capital Transportation Program: 6-Year List of Projects

Currently, at the end of August each year, DeIDOT submits to the Governor's Council on Transportation (COT) a proposed update to Delaware's 6-year Capital Transportation Program (CTP). The COT reviews the proposed projects, works with Metropolitan Planning Organizations (MPOs) to prioritize new projects, holds public meetings and hearings, and submits the CTP to the Governor and Budget Office by March 15 of each year. Expenditure of CTP funds is authorized when the General Assembly passes the Bond Bill.

## Fiscal Year Work Program: Immediate Actions

This 1-year plan lists the specifics of current year CTP programs, including project phases, costs, and accountability.



# Transportation Planning

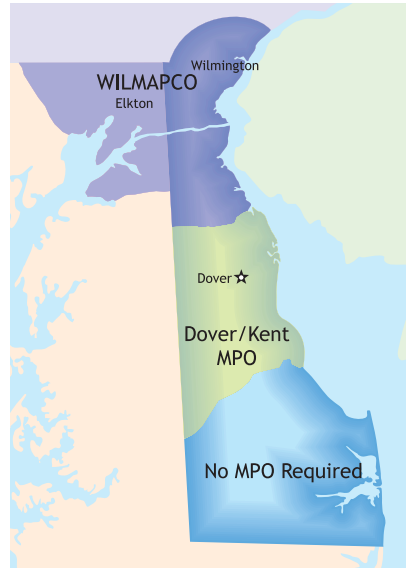
## Transportation Planning Organizations

### Council on Transportation and The Capital Transportation Program

The Delaware Council on Transportation (COT) is a nine-member panel of business and community leaders appointed by the Governor to advise on issues relating to transportation, and to review and seek public comment on the Department of Transportation's Capital Transportation Program (CTP) mandated by Delaware Code. The CTP is a six-year program of transportation investments that is updated yearly and presented for approval and funding by the General Assembly. It also serves as the federally required three-year Transportation Improvement Program (TIP). Contact: Division of Financial Management and Budget Delaware Department of Transportation (302)760-2688.

### MPOs

Figure 5.2



Source: DeIDOT Division of Planning

### Metropolitan Planning Organizations (MPOs)

As a part of its surface transportation laws and regulations, the Federal Government requires metropolitan areas with populations of 50,000 or more to organize Metropolitan Planning Organizations (MPOs). MPOs develop long range transportation plans, including a prioritized Transportation Improvement Plan (TIP), plus programs, projects, and monitoring efforts that involve Federal funding within their jurisdiction. DeIDOT coordinates closely with the MPOs to assure that their long range plans complement DeIDOT's long range plans, and that MPO transportation improvement plans align with the first three years of Delaware's Capital Transportation Program (CTP).



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## Delaware has two MPOs:

Delaware's Metropolitan Planning Organizations include the Dover/ Kent County MPO and the Wilmington Area Planning Council (WILMAPCO), which represents New Castle County and Cecil County, Maryland. In addition, each has a Technical Advisory Committee of staff-level local government and agency representatives and a Public Advisory Committee consisting of citizens representing civic, business, environmental, and private transportation provider interest groups.

Urban areas of Sussex County have less than the required 50,000 permanent population needed to establish an MPO.

### **Dover/Kent County Metropolitan Planning Organization - Staff Office**

Juanita S. Wieczorek, Executive Director

Ph: (302) 760-2713

P.O. Box 383

Dover, DE 19903-0383

### **Wilmington Area Planning Council (WILMAPCO) - Staff Office**

Ted Matley, Executive Director

Ph: (302) 737-6205

850 Library Avenue

Suite 100

Newark, DE 19711

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## Financing the System

### Revenue Sources

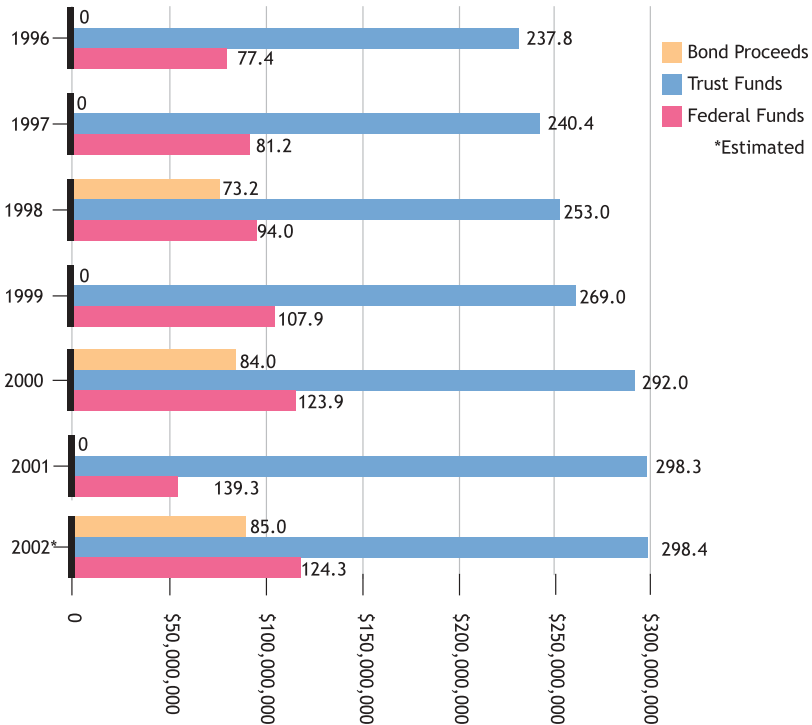
There are two major sources for transportation funding in Delaware: the Transportation Trust Fund (which includes proceeds from the sale of Revenue Bonds) and Federal Funds. These support short and long term improvements such as the six-year Capital Transportation Program (CTP), which includes improvements for roads and bridges, grants and allocations, transit services, and Departmental Support Systems.

# Transportation Planning

## Major Sources of Transportation Revenue in DE, FY 1996-2002

(Dollars in Millions)

Figure 5.3



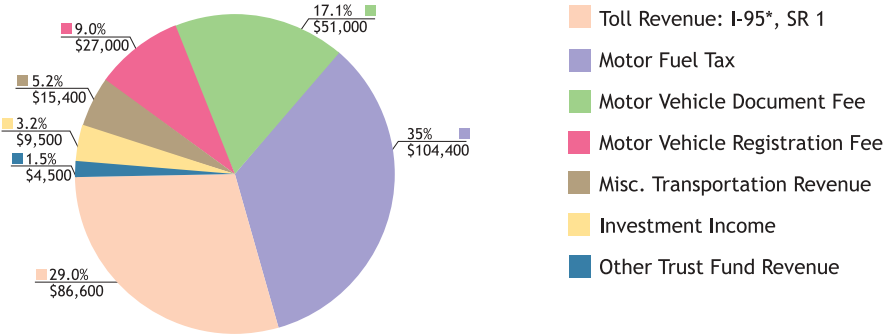
Source: Trust Fund Administration, Audited Financial Statements, Accounting Federal Fund Year End Revenue Roll-up

## The Transportation Trust Fund

Transportation Trust Fund (TTF) revenues are the largest and most stable source of income for the Department. Established in 1987 to provide a predictable source of revenue to finance the construction and maintenance of Delaware's integrated transportation system, the TTF is the state's financing vehicle for all transportation capital and operating expenditures, including transit. Bonds are sold against the revenue stream. At least 50% of the Capital Program must be financed from the annual revenues; the other 50% may be bonded. These figures do not include \$10 million general fund transfer of escheat tax revenue.

# Transportation Trust Fund Projected Revenue FY 2002

Figure 5.4



(Dollars in millions)

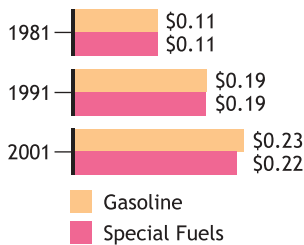
\* - Includes concession revenue of \$2.4 million

Source: Trust Fund Administration, 10/01 DEFAC

Primary sources of income for the fund are motor fuel taxes, toll revenue, and motor vehicle document fees. Vehicle registrations, titling, and driver's license fees are also dedicated to the fund. Motor fuel tax revenue is derived from taxes imposed by the State on gasoline and special fuels. Gasoline and special fuel taxes are payable by distributors and dealers.

## State Motor Fuel Tax History 1981, 1991, 2001

(Per Gallon) Figure 5.5



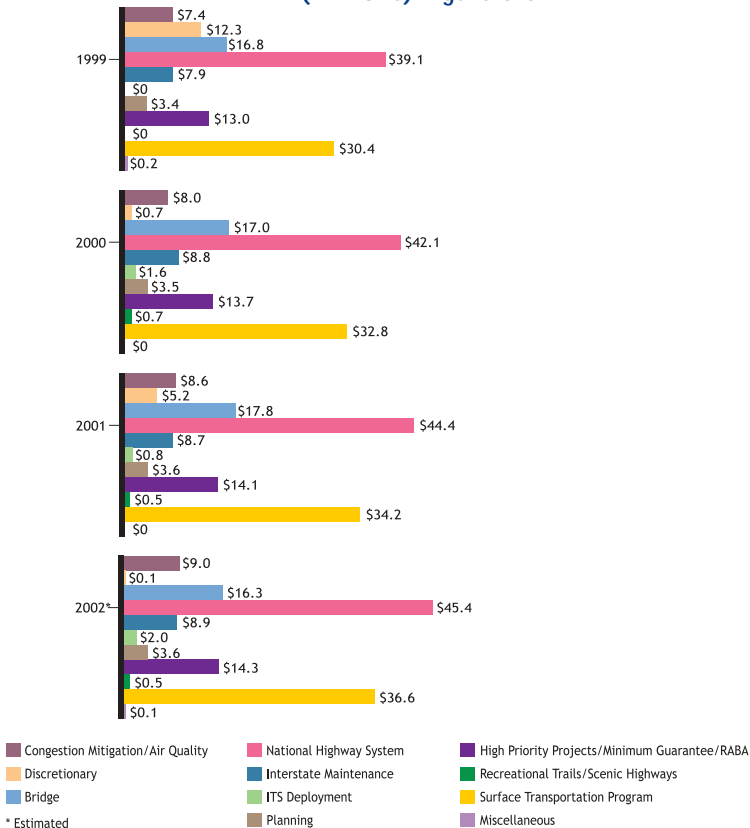
Source: Trust Fund Administration

# Transportation Planning

## Federal Highway and Federal Transit Administration Apportionments

1998's Transportation Equity Act for the 21st Century (or "TEA-21") authorizes transportation federal aid for all states. Federal Highway Administration (FHWA) funds support transportation improvements such as congestion mitigation and air quality (CMAQ), metropolitan planning (MPO), bridge, interstate maintenance (IM), National Highway System (NHS), and Surface Transportation Programs (STP). Federal Transit Administration (FTA) funds support urban and rural transit programs, MPO and State planning, elderly and disabled, welfare-to-work programs, and discretionary transit funds.

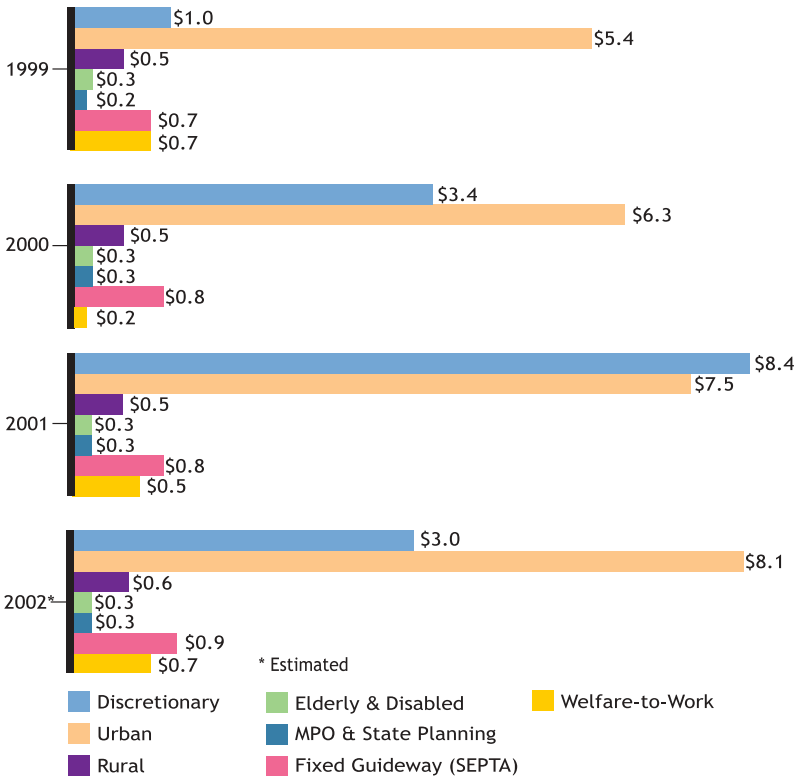
**FHWA Apportionments FY 1999-2002**  
(Millions) Figure 5.6



Under TEA-21, highway apportionments from FHWA will increase from an average of \$79 million (pre 1999) to \$130 million annually (including discretionary). Transit apportionments from FTA will increase from \$3.5 million (pre 1999) to \$14 million (including discretionary funding). Delaware is eligible to receive federal discretionary funds, which are supplemental to its regular TEA-21 authorizations.

## FTA Apportionments FY 1999-2002

(Millions) Figure 5.7



Source: DeIDOT Division of Financial Management & Budget

# Transportation Planning

## Federally Funded Programs

Federal funding is provided through a number of programs:

- **Highway Safety Improvement Program (HSIP)**

Identifies accident patterns and creates solutions to reduce the number and severity of accidents on our highways.

- **National Highway System (NHS)**

In Delaware, 319.5 miles of roadways are designated as part of the National Highway System, targeted for Federal funds.

- **Interstate**

23 Interstate road miles in Delaware retain separate funding for completion and maintenance of Interstate roads.

- **Surface Transportation Program (STP)**

These funds may be used for a variety of projects, both highway and transit, on any roads not classified as local or rural minor collectors.

- **Transportation Enhancements Program**

Typical projects include bicycle and pedestrian facilities, preservation of historic transportation structures, and beautification of transportation-related projects. Part of the Surface Transportation Program.

- **Congestion Mitigation and Air Quality Improvement Program**

With Kent and New Castle Counties designated as non-attainment areas, Delaware is eligible for these funds. Money may be used for a variety of programs to improve air quality.

- **Bridge Replacement and Rehabilitation**

This program provides funds to states for the replacement or rehabilitation of unsafe bridges due to structural deficiencies, physical deterioration, or functional obsolescence.

## Capital Budget

Since FY 1995, the General Assembly has authorized its Capital Budget by seven category types. In an effort to be more accessible, responsive, and effective for our customers (Delaware citizens), the department recommended modifying the Capital Budget for fiscal year 2002. On July 1, 2001, the General Assembly and the Governor modified the Department of Transportation's Capital Budget by authorizing four major funding categories to better define funding priorities.

# Delaware Department of Transportation Capital Budget FY 2002

(Thousands) Figure 5.8

## I. Road Systems

A. Expressways	\$ 35,812
B. Arterials	\$ 70,821
C. Collectors	\$ 29,554
D. Locals	\$ 20,693
E. Bridges	\$ 31,287
F. Other	\$ 28,289
<b>Total Road Systems</b>	<b>\$216,456</b>

## II. Grants and Allocations

A. Community Transportation Fund	\$ 20,100
B. Municipal Street Aid	\$ 6,000
<b>Total Grants &amp; Allocations</b>	<b>\$ 26,100</b>

## III. Transit

A. Vehicles	\$ 10,487
B. Transit Amenities	\$ 1,364
C. Rail	\$ 13,793
<b>Total Transit</b>	<b>\$ 25,644</b>

## IV. Support Systems

A. Program Development	\$ 6,549
B. Transportation Maintenance & Operations Facilities	\$ 3,375
C. Transit Operations/Maintenance Facilities	\$ 1,860
D. Technology	\$ 8,136
E. Equipment	\$ 6,960
F. Transportation Management Improvements	\$ 13,521
G. Port of Wilmington	\$ 49,500
H. Airports/Aviation	\$ 1,600
I. Engineering & Contingencies	\$ 500
<b>Total Support Systems</b>	<b>\$92,001</b>

**TOTAL PROGRAM \$360,201**

# Transportation Planning

## Transportation Investment Areas (TIAs)

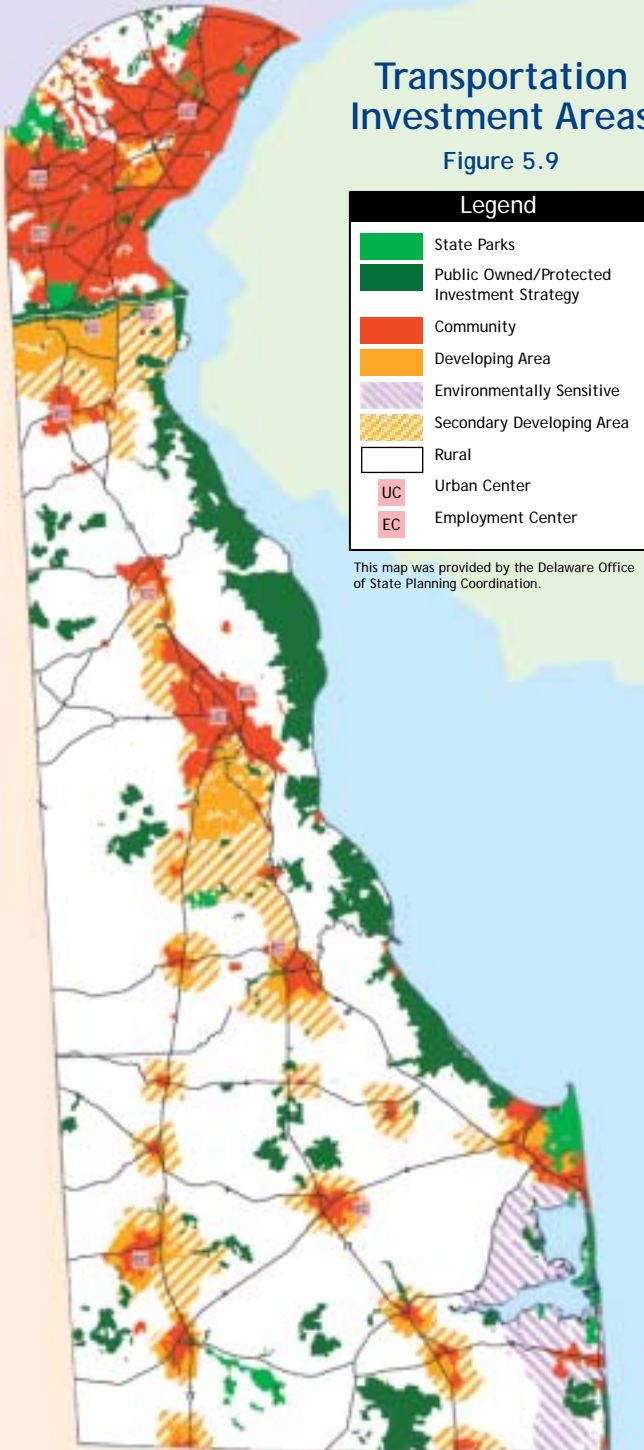
To support state and regional growth management goals, the Delaware Department of Transportation is following these guidelines regarding the general types of investments to be made in each Transportation Investment Area:

- **Communities** - In these areas where population is concentrated, commerce is bustling and a wide range of housing types already exists, state policies will encourage redevelopment and reinvestment.
- **Urban Centers** - In the cities of Wilmington, Newark, and Dover, the state will pursue the same goals listed under “communities” as well as specific strategies that address the special conditions of these places with major concentrations of population and economic, governmental, academic, and cultural activities.
- **Employment Centers** - In these specially designated areas, the state will promote new economic development, and a balance between workplaces and residences.
- **Developing Areas** - These are areas where state investments and policies will be targeted to accommodate existing development and promote orderly growth.
- **Environmentally Sensitive Developing Areas** - In these areas surrounding the inland bays, where development is putting pressure on both the natural environment and infrastructure such as roads, the state will seek a balance between resource protection and sustainable growth.
- **Secondary Developing Areas** - In these areas designated for growth by county plans, but not included in the state’s Developing Areas, the state will promote orderly development and the coordinated phasing of infrastructure investment, consistent with the extent and timing of future growth, and within the limitations of state financial resources.
- **Rural Areas** - In these historically open areas, state policies will encourage the preservation of a rural lifestyle and discourage new development.



# Transportation Investment Areas

Figure 5.9



# Transportation Planning

## ITMS Transportation Investments

Figure 5.10

DelDOT Division of Planning

**Legend**

-  Critical ITMS Investment Miles
-  Intersection Monitoring & Investment



## Managing Delaware's Transportation with Technology – DelTrac

DeIDOT has identified a number of “Critical Miles” where Integrated Transportation Management System (ITMS) investments are slated. Additionally, DeIDOT is taking advantage of modern technologies to help manage the entire transportation system statewide. The new DelTrac Integrated Transportation Management System uses inter-agency partnerships and tools such as traffic advisory radio, dynamic message signs, traffic-responsive signal systems, video monitoring, AVL transit schedule adherence, the Web, and other evolving technologies to help reduce congestion, to spend dollars more efficiently across more miles and modes, and to save lives.

## Public Information and Outreach

The Delaware Department of Transportation has created a series of brochures on many of its ongoing programs and initiatives. Contact DeIDOT's Division of External Affairs at (302) 760-2080 or, in DE, (800) 652-5600 for “FYI - A Closer Look” publications on the following topics:

### Highlights of DeIDOT's Long-Range Transportation Plan –

Poster/brochure provides an overview of Delaware's Long-Range Transportation Plan to the year 2020. It summarizes where Delaware is now in terms of moving people and goods and discusses a vision for the future. It explains how Delaware will use seven strategies to shape its transportation future.



**Understanding DeIDOT's Pipeline Process –** Explains how ideas, plans, and suggestions for transportation projects move from concept

# Transportation Planning

to completion through the DeIDOT project pipeline.

**The Capital Transportation Program and the Council on Transportation** - Tells about the Council's role in transportation planning and traces the twelve steps that go into creating the state's six-year program of transportation investments known as the Capital Transportation Program (CTP).

**Corridor Capacity Preservation Program** - Discusses the tools Delaware uses to maintain the ability of a road to carry increasing volumes of traffic safely and efficiently, without building an entirely new road.





## DelTrac - Delaware's Integrated Transportation Management System

Technology is revolutionizing the way we approach transportation issues. Learn how satellites, sensors, cameras, fiber optics, wireless, and Internet technologies, along with inter-agency partnerships, are being used throughout Delaware's transportation system to manage the movement of people and goods.

**Public Involvement** - Increasingly, transportation investment choices are being made in a fast-paced, rapidly changing world of new technologies, limited resources, and decreasing land availability. This brochure shows the important role the public plays in shaping DeIDOT plans.



# Transportation Planning

## Customer Satisfaction

DeIDOT is reaching out to customers in order to meet their changing needs. Beginning in 1997, surveys were taken related to three areas of satisfaction: General Transportation, Transit-Served Market Areas, and Shippers & Carriers. In 1998, a Bus User Survey was added. These surveys are conducted annually as part of the Statewide Long Range Transportation Plan's performance monitoring system. The following tables highlight some of the results.

### General Transportation User Survey Satisfaction Levels, 1998 - 2000

Figure 5.11

Transportation User Group	2000 Overall Mean Performance Score	2000 Overall Mean Importance Score	2000 Satisfaction Index	1999 Satisfaction Index	1998 Satisfaction Index
SOV (Single Occupant Vehicle Users)	4.84	5.88	82.3	81.3	83.4
All Motorists (Carpool and SOV Hwy Only Attributes)	4.85	5.90	82.2	80.9	83.1
All Carpoolers (Carpool Attributes)	4.04	4.75	85.1	83.1	91.0
Transit Riders	4.62	5.19	89.0	83.9	89.2
Bicyclists	3.98	4.83	82.4	73.1	59.2
Pedestrians	4.10	5.31	77.2	77.8	80.1

A random statewide telephone survey of Delaware residents aged 16 years and older. Importance and performance scores are rated on a scale of 1 to 7, with 7 being the highest rating. The satisfaction index demonstrates the balance between importance and performance in the minds of the users, and the higher the level of satisfaction.

Source: DeIDOT Division of Planning

Satisfaction among motorists, single occupant vehicle users, carpoolers, transit riders, and bicyclists increased from 1999 to 2000. Satisfaction among pedestrians decreased slightly from 77.8 to 77.2.

# Transit-Served Market Area Survey Satisfaction Levels, 1998 - 2000

Figure 5.12

Transportation User Group	2000 Overall Mean Performance Score	2000 Overall Mean Importance Score	2000 Satisfaction Index	1999 Satisfaction Index	1998 Satisfaction Index
SOV (Single Occupant Vehicle Users)	5.19	5.93	87.5	86.3	90.2
All Motorists (Carpool and SOV Hwy Only Attributes)	5.27	6.03	87.3	84.1	87.8
All Carpoolers (Carpool Attributes)	3.66	4.47	81.9	80.4	91.8
Bicyclists	3.96	4.59	86.3	86.8	No Data*
Pedestrians	4.46	4.48	99.5	85.7	77.1

\*No data. The 4 bicyclists surveyed could not provide any valid rating data in the 1998 survey.

A random statewide telephone survey of 100 Delaware residents aged 16 years and older, who reside in the transit-served areas of Delaware, but who have not used transit during the previous month.

Source: DelDOT Division of Planning

In transit-served areas, satisfaction among all transportation users except bicyclists rose from 1999 to 2000, with the greatest gains coming from the pedestrian and all motorist categories. The pedestrian Satisfaction Index increased from 85.7 in 1999 to 99.5 in 2000, a gain of 13.8. Bicyclist satisfaction declined slightly from 86.9 in 1999 to 86.3 in 2000.

\*Note: Results are not percentages in the traditional sense. The satisfaction index is a result of computing the ratio between the performance index and the importance index given to each mode of transportation by each user group. A 100 reflects the ideal balance between performance and importance.

# Transportation Planning

## Shippers and Carriers Survey\* Satisfaction Levels, 1998 - 2000

Figure 5.13

Transportation User Group	2000 Overall Mean Performance Score	2000 Overall Mean Importance Score	2000 Satisfaction Index	1999 Satisfaction Index	1998 Satisfaction Index
Shipping via the Port of Wilmington	5.23	4.77	109.6	115.0	83.3
Shipping by truck	5.03	5.58	90.1	86.8	75.6
Shipping by air freight	4.66	3.92	118.9	242.0	106.0
Shipping by rail freight	4.10	5.66	72.4	102.0	114.0

\*A telephone survey of 100 companies that ship or transport goods in Delaware.

Source: DeIDOT Division of Planning

In 2000, shippers considered truck and rail shipments most important, but indicated highest satisfaction with shipments made by truck and through the Port of Wilmington. Satisfaction with rail freight shippers and carriers declined by 29.6 points from 2000 1999 to 2000, while truck shipper satisfaction increased 3.3 points from 86.8 in 1999 to 90.1 in 2000.

## Bus Transit Rider Survey\*\* Satisfaction Levels, 1999 - 2000

Figure 5.14

Transportation User Group	2000 Overall Mean Performance Score	2000 Overall Mean Importance Score	2000 Satisfaction Index	1999 Satisfaction Index
SOV (Single Occupancy Vehicle Users)	4.63	5.92	78.2	74.2
Bus Transit Riders	5.50	6.47	85.0	83.0
All Motorists (Carpool and SOV-Hwy Only Attributes)	4.81	6.03	79.7	76.2
All Carpoolers (Carpool Attributes)	4.49	5.18	86.7	90.2
Pedestrians	4.95	6.20	79.8	84.8
Bicyclists	4.08	3.33	122.5	No Data*

\*In 1998, the one bicyclist rated all attributes, in both importance and performance, as a "5." 1999 had no bicyclists in the sample.

\*\*A random statewide telephone survey of 100 Delaware residents, aged 16 and older, who ride buses.

Source: DeIDOT Division of Planning

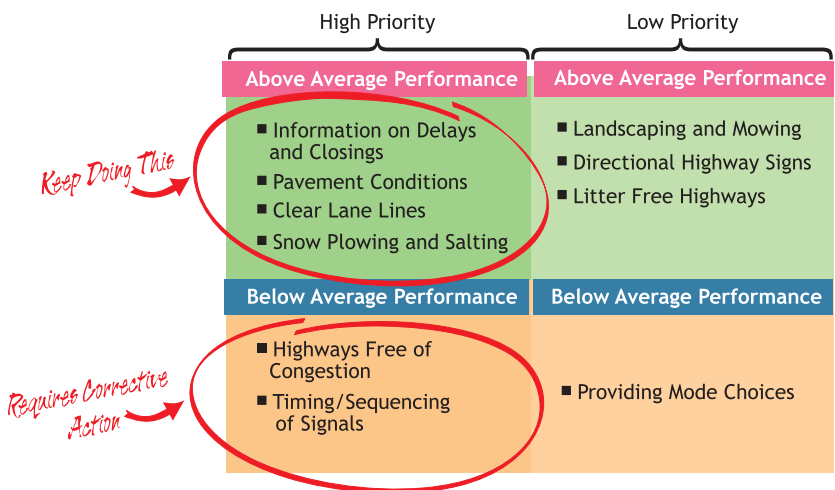


This survey is targeted to those who rode the bus in the month prior to the survey, but it asks them to rate all modes (carpooling, driving alone, etc.) they had used recently. In 2000, this group gave bicycling, carpooling and bus transit their highest level of satisfaction ratings, meaning these modes were both important to them and they are performing well for them. As in 1999, this group's lowest satisfaction rating went to single occupancy vehicles.

## Rating and Importance of Service - All Motorists, 2000

Figure 5.15

In 2000, General Transportation Users survey respondents in the "All Motorists" category were asked questions about how well they feel Delaware's transportation system meets their needs and how important different transportation-related attributes are to them. The survey revealed motorists' priorities and showed where service should be maintained and where DeIDOT should focus on corrective actions that will further increase satisfaction for Delaware residents.



Source: DeIDOT Division of Planning

Compared to the 1999 survey, in 2000 pavement condition moved from needing corrective action to above average performance, meaning positive improvement has been noted. All else remained the same.

# Important Phone Numbers

## DelDOT:

Delaware Transit Corporation	(302) 577-3278 or 739-3278
Division of External Affairs	(800) 652-5600 in DE or (302) 760-2080
Division of Financial Management & Budget	(302) 760-2688
Division of Maintenance & Operations	(302) 760-2201
Traffic Engineering & Management	(302) 739-4366
Division of Planning	(302) 760-2111
Office of Aeronautics	(302) 760-2149
Division of Transportation Solutions	(302) 760-2213
Bridge Management	(302) 760-2299
Motor Fuel Tax Administration	(302) 744-2715

## Other State Agencies:

Delaware Economic Development Office	(302) 672-6808
Delaware State Police	(302) 739-5901
Department of Public Safety, Div. of Motor Vehicles	(302) 744-2541
Office of State Planning Coordination	(302) 739-3090

## Other Organizations:

Amtrak	(302) 429-6527 or 1-800-872-7245
Delaware River & Bay Authority	(302) 571-6300
Port of Wilmington (Diamond State Port Corporation)	(302) 472-7678
SEPTA	(215) 580-7800
University of Delaware, Center for Applied Demography and Survey Research	(302) 831-8406
US Bureau of the Census (Philadelphia Region Office)	(215) 656-7550
US Army Corps of Engineers (Philadelphia District)	(215) 656-6500
US Department of Transportation - Bureau of Transportation Statistics	(202) 366-3282

**Delaware Transit Corporation - An Operating Division of DeIDOT:**

Dart First State

Bus Route & Schedule Information

New Castle, Kent & Intercounty . . . . .1-800-652-DART (3278)

Sussex County . . . . .1-800-553-DART (3278)

Paratransit . . . . .1-800-553-DART (3278)

*Specialized transportation for ADA-certified individuals*

Customer Relations . . . . .1-800-355-8080

TDD . . . . .1-800-252-1600

*Hearing and Voice Impaired*

SEPTA R2 Train Service . . . . .1-800-652-DART or (215) 580-7800

*Commuter train service connecting Newark, Churchmans  
Crossing, Wilmington, and Claymont to Philadelphia, PA*

RideShare Delaware & Home Free Guarantee . . . . .1-888-RIDE-MATCH

*Carpool matching service and Guaranteed Ride Home Program*

Park & Rides / Park & Pools . . . . .1-800-652-DART

*Designated parking lots available throughout the state  
to park your car and catch a bus or carpool*

Transit-Related Programs

Job Works! & Get A Job • Get A Ride . . . . .(302) 577-DART, option 5

*Free rides for interviewees and new hires*

Operation Lifesaver Delaware . . . . .(302) 577-DART, ext. 3413

*Railroad Crossing & Right-of-Way safety awareness*

Travel Training . . . . .(302) 577-DART, ext. 3589 or (302) 760-2858

*Learn how to ride public transit in one-on-one or  
group training sessions*

SCAT (Senior Citizens Affordable Taxi) . . . . .1-800-355-8080

*50% discount on taxi fares for seniors and persons  
with disabilities*

Website Address . . . . .www.DartFirstState.com

*This Delaware Transportation Facts Book is published by DeIDOT's Division of Planning,  
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Comments or questions regarding this document may be directed to:

**Delaware  
Transportation  
Facts 2001**



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[www.deldot.net](http://www.deldot.net)**