

A Report to the Joint Budget Oversight Committee

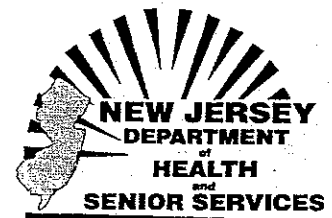
June 2004

(Issued August 2005)



Richard J. Codey
Acting Governor

**NJ Emergency Medical Services
Helicopter Response Program**



Fred M. Jacobs, M.D., J.D.
Commissioner

REPORT TO THE JOINT BUDGET OVERSIGHT COMMITTEE ON
THE NEW JERSEY EMERGENCY MEDICAL SERVICES
HELICOPTER RESPONSE PROGRAM

Fred M. Jacobs, M.D., J.D., Commissioner
New Jersey State Department of Health and Senior Services

January 1, 2004 to June 30, 2004
(Issued October 2005)

The NJ EMS Helicopter Response Program was established by the Legislature in 1988, in order to provide rapid emergency transport and care for trauma victims in NJ. This program is now referred to as Jersey Emergency Medical Shock Trauma Air Rescue (JEMSTAR). JEMSTAR is operated as a cooperative endeavor by:

- The Department of Health and Senior Services (DHSS)
Office of Emergency Medical Services
- The Department of Law and Public Safety
New Jersey State Police
- The University of Medicine and Dentistry of New Jersey (UMDNJ)
- Virtua Health System, West Jersey

The Commissioner of Health and Senior Services is advised on the operation of all air medical activities by the JEMSTAR subcommittee of the Mobile Intensive Care Advisory Council, which was established in accordance with NJSA 26:2K-16. This subcommittee is comprised of all parties involved in the NJ EMS Helicopter Response Program, as well as representatives of the State's Level I and II trauma centers, the Office of the Attorney General, and staff of the DHSS OEMS. The committee monitors the status of the JEMSTAR program and makes recommendations on medical and operational matters.

Aircraft

Currently, the system consists of 2 dedicated, medically configured Sikorsky S76-B helicopters, with two additional helicopters (also Sikorskys) serving as backup. The helicopters are owned, piloted, and maintained by the NJSP, which is responsible for the oversight of all program aviation operations.

Operations

NorthSTAR and SouthSTAR are the designated helicopters, each covering the named portions of the state. The unofficial boundary line dividing the state is Interstate 195. NorthSTAR is located on top of, and receives staffing and medical command from the UMDNJ in Newark. SouthSTAR is currently located at Virtua Health System – West Jersey Hospital in

Voorhees. Staffing is provided by Virtua, and medical command for trauma patients is provided by Cooper Hospital-University Medical Center in Camden. All pilots for the JEMSTAR program are NJSP troopers with extensive flying experience.

Statistical data for the six-month period of January 2004 to June 2004 on volume of flights, types of patients transported, and time in flight and on scenes is presented in tables and charts in Attachments 1 through 3.

Funding

Funds allocated by the Department of Treasury to DHSS and LPS from the surcharge on motor vehicles (\$1) do not cover the operating expenses of this JEMSTAR program. In order to compensate for this shortfall, Mobile Intensive Care Unit (MICU) hospitals providing the medical component of the program were directed by DHSS to bill patients \$1337 for JEMSTAR services. This fixed charge billed in a manner similar to the billing of patients treated by ground-based MICUs represents only a portion of the cost of the medical services provided during the flight.

A summary of the collections on direct patient billing for medical services is listed in Attachment 4. Data on various program expenses overall, as well as for the medical and aviation components, are shown in Attachments 5, 6, and 7. Revenues collected for the helicopter fund are presented in Attachment 8.

Current Issues

Applications are being accepted for air medical licenses by private companies, both in-state and out-of-state.

There is a need to supplement the current funding for the JEMSTAR program; as noted, the \$1 surcharge on motor vehicles is inadequate. There have been discussions within the JEMSTAR Advisory Committee to recommend raising the surcharge amount.

There has also been discussion regarding a possible third site for a JEMSTAR helicopter, which would be designated "CenSTAR" for Central New Jersey.

Plans are underway to move NorthSTAR from UMDNJ-Newark to another site that would put it in a more central location in Northern New Jersey. Discussions with various airports and helistops have taken place.

OEMS has been placed within the newly formed Division of Health Emergency Preparedness and Response; David Gruber has been named Assistant Commissioner for this division. This is a positive move for OEMS.

The Department has changed the months of this report for the Joint Budget Oversight Committee. The new reporting schedule will now coincide with the fiscal year.

June 2004 Report to the Joint Budget Oversight Committee
New Jersey Emergency Medical Services Helicopter Response Program
Page 3

This report is submitted each six months as required by N.J.S.A 26-2K-35-et seq. The activities, costs and revenues related to the New Jersey Emergency Medical Services Helicopter Response Program for the six-month period from January 1, 2004 through June 30, 2004 are detailed in the Attachments listed below:

ATTACHMENT 1:	Comparative Flight Analysis
ATTACHMENT 2:	Missions by Category
ATTACHMENT 2A:	Mission Profiles
ATTACHMENT 2B:	Prehospital Mission Types
ATTACHMENT 2C:	Interfacility Mission Types
ATTACHMENT 3:	Scene Waiting Times
ATTACHMENT 4:	Total Direct Patient Billings
ATTACHMENT 5:	Total Program Expenses
ATTACHMENT 5A:	Expenses by Category
ATTACHMENT 6:	Medical Component Expenses
ATTACHMENT 6A:	NorthSTAR Expenses
ATTACHMENT 6B:	SouthSTAR Expenses
ATTACHMENT 7:	Aviation Component Expenditures
ATTACHMENT 7A:	Expenditures for N1NJ
ATTACHMENT 7B:	Expenditures for N5NJ
ATTACHMENT 7C:	Expenditures for N9NJ
ATTACHMENT 7D:	Expenditures for N7NJ
ATTACHMENT 7E:	Expenditures by Account
ATTACHMENT 7F:	Overall Expenditures by Major Account
ATTACHMENT 7G:	Operating Expenditures by Aircraft
ATTACHMENT 8:	Helicopter Program Fund Monthly Revenues
ATTACHMENT 8A:	Helicopter Program Fund Yearly Revenue

The above data is reflective of information submitted by all participants in the program. All percentages are rounded to the nearest whole percent, and therefore may not total 100%.

New Jersey Emergency Medical Services Helicopter Response Program

Comparative Flight Analysis

COMPLETED FLIGHT SUMMARY

January 1, 2003 through June 30, 2003

NORTHSTAR

		<u>Completed Flights</u>	<u>Scene</u>	<u>Interfacility</u>
Jan	2003	33	23	10
Feb	2003	56	23	33
Mar	2003	44	25	19
Apr	2003	43	33	10
May	2003	44	29	15
June	2003	<u>54</u>	<u>43</u>	<u>11</u>
		274	176	98

SOUTHSTAR

		<u>Completed Flights</u>	<u>Scene</u>	<u>Interfacility</u>
Jan	2003	58	34	24
Feb	2003	57	31	26
Mar	2003	57	36	21
Apr	2003	65	45	20
May	2003	49	40	9
June	2003	<u>73</u>	<u>52</u>	<u>21</u>
		359	238	121

TOTAL FLIGHTS

633	414	219
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January 1, 2004 through June 30, 2004

NORTHSTAR

		<u>Completed Flights</u>	<u>Scene</u>	<u>Interfacility</u>
Jan	2004	45	32	13
Feb	2004	50	36	14
Mar	2004	52	37	15
Apr	2004	42	27	15
May	2004	56	38	18
June	2004	<u>57</u>	<u>40</u>	<u>17</u>
		302	210	92

Change over 2003	10.2%	19.3%	-6.1%
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SOUTHSTAR

		<u>Completed Flights</u>	<u>Scene</u>	<u>Interfacility</u>
Jan	2004	67	39	28
Feb	2004	67	49	18
Mar	2004	70	50	20
Apr	2004	69	47	22
May	2004	86	62	24
June	2004	<u>71</u>	<u>45</u>	<u>26</u>
		430	292	138

Change over 2003	19.8%	22.7%	14.0%
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TOTAL FLIGHTS

732	502	230
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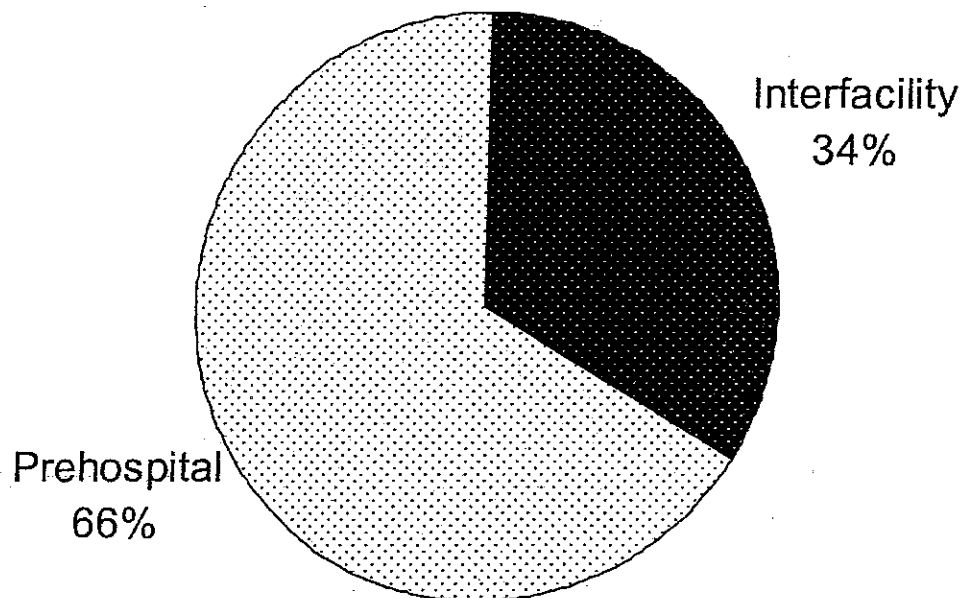
Change over 2003

15.6%	21.3%	5.0%
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New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total Program Operations 836 Patient Transportation Missions



Mission Category

Prehospital - 554

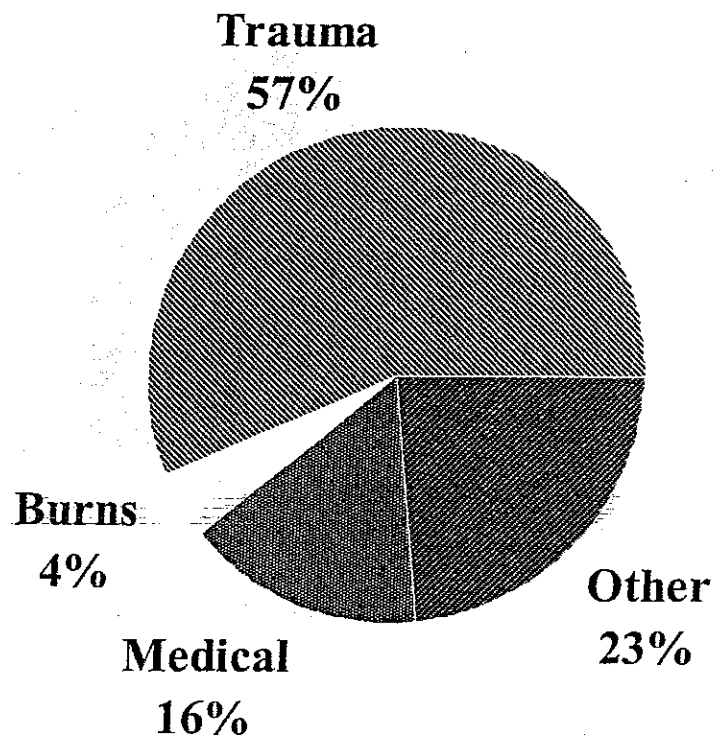
Interfacility - 282

(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total Program Operations 836 Patient Transportation Missions



Mission Profiles - All Types

Trauma Related - 474

Medical Reasons - 131

Burns - 36

All Other - 195

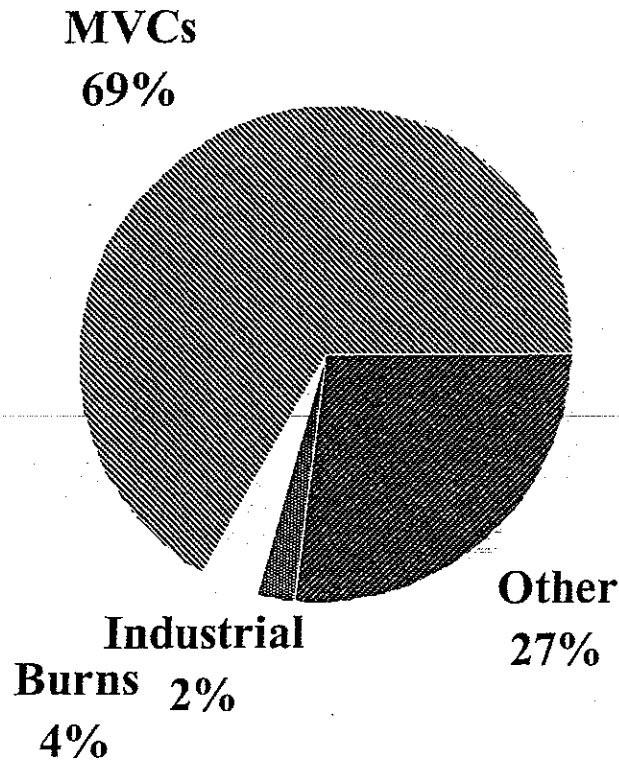
(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total Program Operations

554 Prehospital Missions



Mission Profiles - All Types

Motor Vehicle Collision - 371

Industrial Accidents - 13

Burns - 22

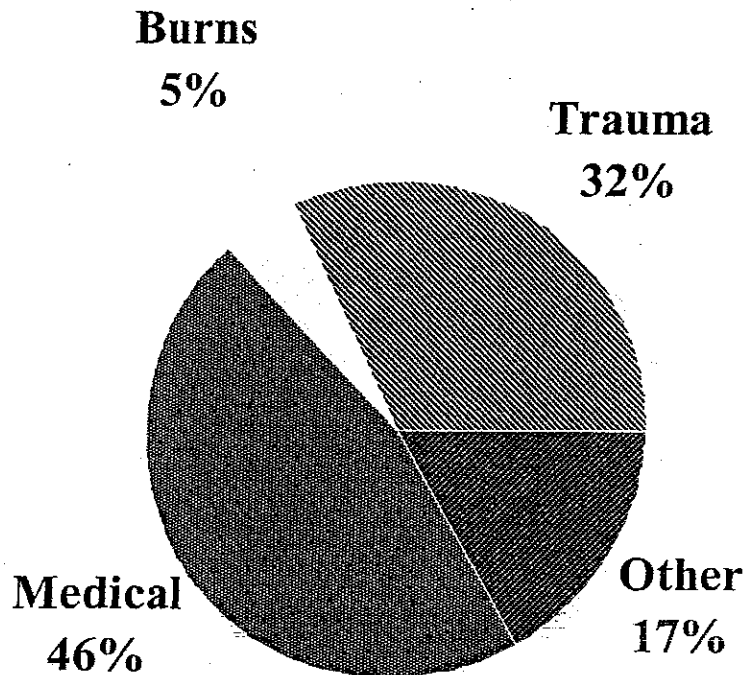
All Other - 148

(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total Program Operations 282 Interfacility Transfer Missions



Mission Profiles - All Types

Trauma Related - 90

Medical Reasons - 131

Burns - 14

All Other 47

(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program Average PreHospital Mission Waiting Times

January 01, 2004 through June 30, 2004

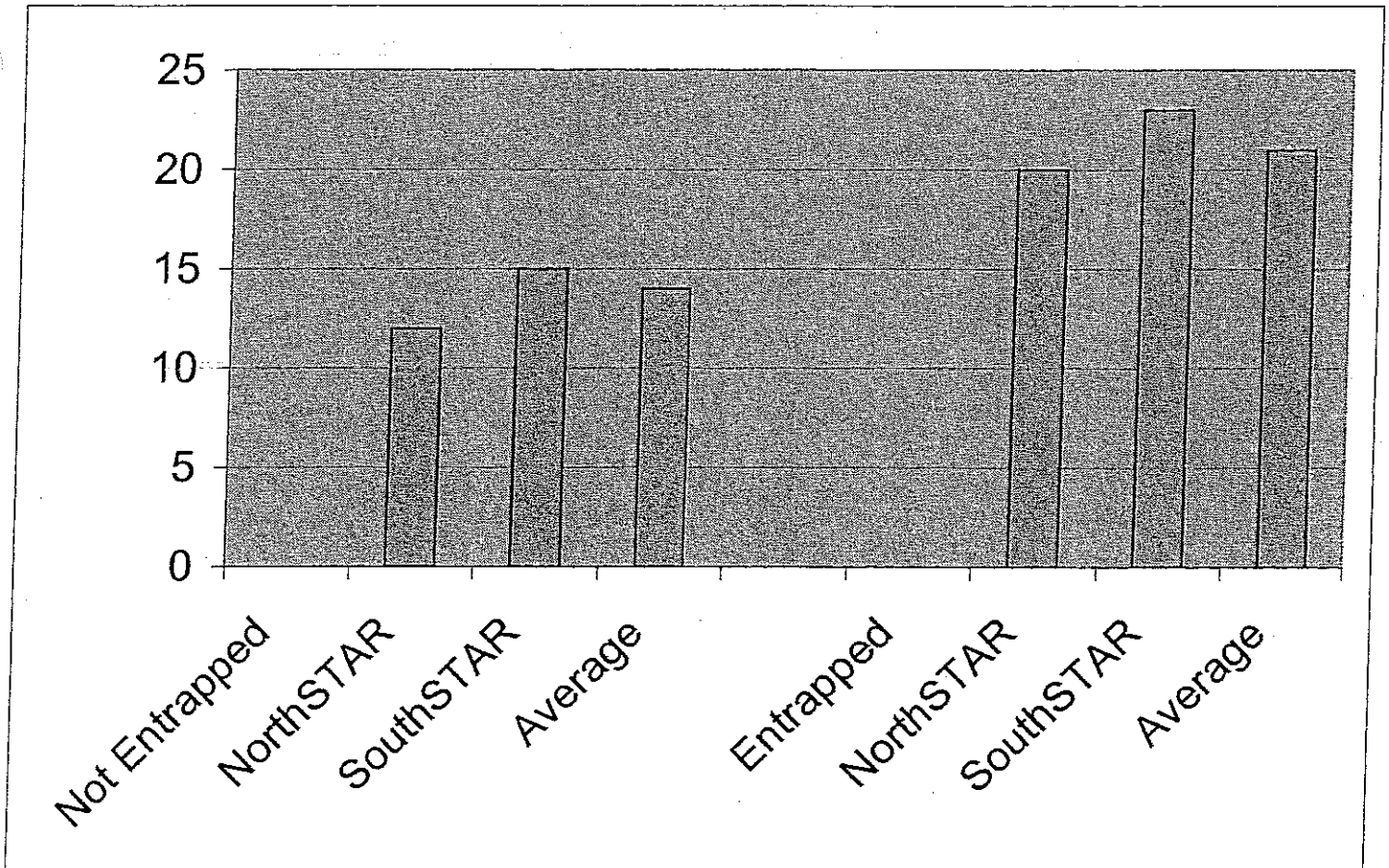
Not Entrapped

NorthSTAR	12 Minutes
SouthSTAR	15 Minutes
Average	14 Minutes

Entrapped

NorthSTAR	20 Minutes
SouthSTAR	23 Minutes
Average	21 Minutes

* Status of patient on arrival



(Averages are rounded to the nearest whole number and divided by number of flights)

New Jersey Emergency Medical Services Helicopter Response Program

Total Direct Patient Billings

January 1, 2004 through June 30, 2004

NORTHSTAR

		<u>Charges</u>	<u>Collections</u>
January	2004	\$143,612	\$37,702
February	2004	\$117,138	\$25,754
March	2004	\$101,374	\$29,535
April	2004	\$136,674	\$30,684
May	2004	\$151,481	\$32,041
June	2004	<u>\$162,491</u>	<u>\$37,587</u>
		\$812,770	\$193,303

SOUTHSTAR

		<u>Charges</u>	<u>Collections</u>
January	2004	\$83,187	\$21,782
February	2004	\$78,968	\$51,232
March	2004	\$69,481	\$58,538
April	2004	\$76,278	\$31,469
May	2004	\$118,652	\$39,973
June	2004	<u>\$89,579</u>	<u>\$41,078</u>
		\$516,145	\$244,072

collections = $\frac{437,375}{1,328,915} = 32.9\%$

- 836 patient transports for 6 month pd.
- 1,672 per year
- 1,672 x

$1600 \times 1337 = \$2,139,200 \times .33 = \$705,936$ $\$851,451$
 $1600 \times 3000 = \$4,800,000 \times .33 = \$1,584,000 - \$684,544 =$
 $1600 \times 4000 = \$6,400,000 \times .33 = \$2,098,000 - \$684,544 =$

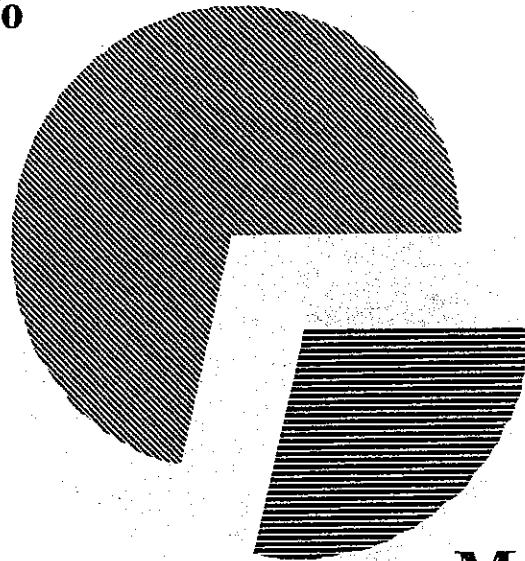
New Jersey Emergency Medical Services Helicopter Response Program

January 1, 2004 through June 30, 2004

Total Program Costs

Aviation

72%



Medical

28%

\$4,738,623

Aviation - \$3,392,591

Medical - \$1,346,032

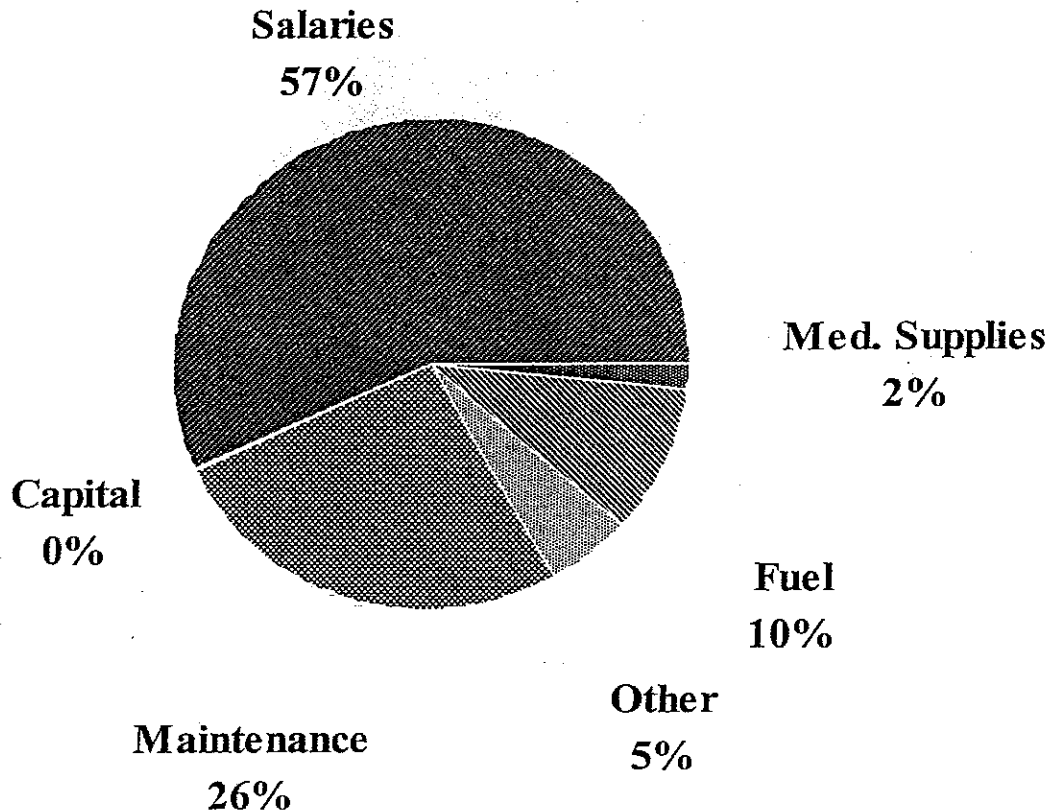
(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total Program Costs

\$4,738,623



Expenses by Category

Salaries - \$2,692,920

Fuel - \$465,842

Capital - \$22,207

Med. Supplies - \$75,915

Maintenance - \$1,229,394

Other - \$252,345

(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

January 1, 2004 through June 30, 2004

Total Program Medical Expenses

\$ 3,043,387



Total Medical Expenses by Category

Salaries - \$2,692,920

Capital - \$22,207

Med. Supplies - \$75,915

Other - \$252,345

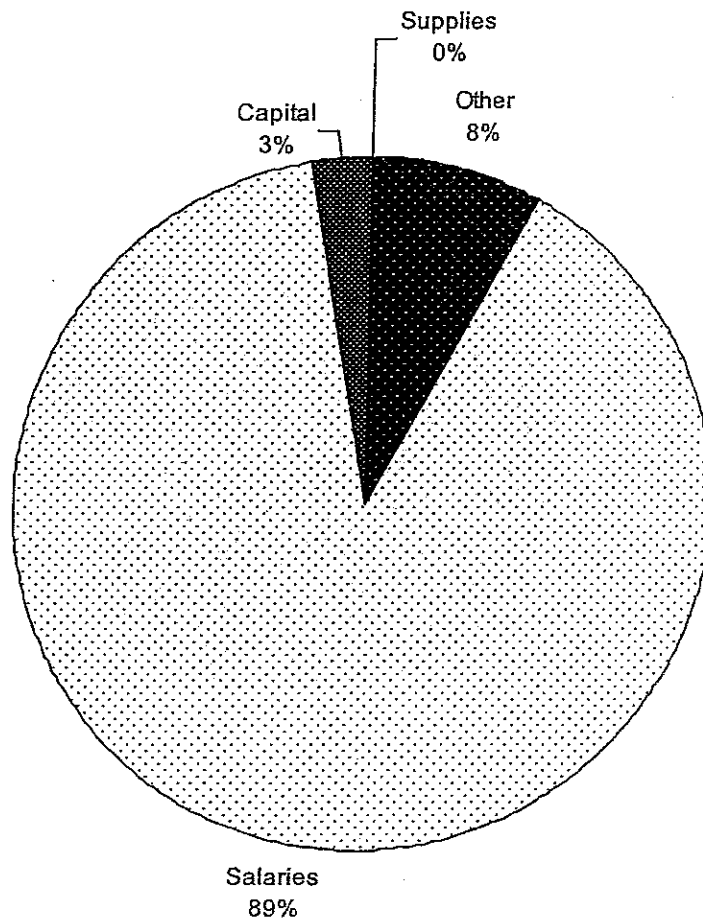
(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total NorthSTAR Expenses

\$ 812,770



Total NorthSTAR Expenses by Category

Salaries - \$ 726,036

Capital - \$ 22,207

Med. Supplies - \$ 0

Other - \$ 64,527

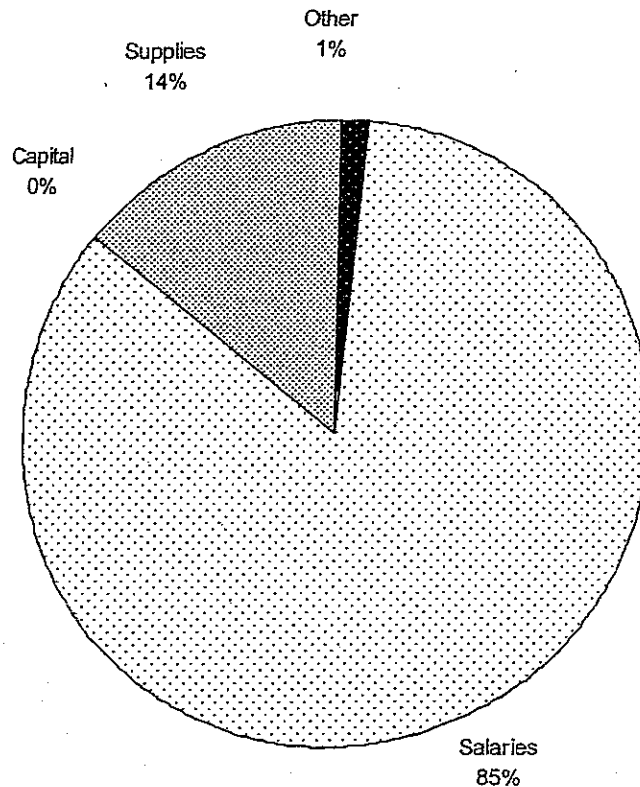
(All percentages are rounded to the nearest whole percent.)

New Jersey Emergency Medical Services Helicopter Response Program

01/01/04 through 06/30/04

Total SouthSTAR Expenses

\$ 533,262



Total NorthSTAR Expenses by Category

Salaries - \$449,869

Capital - \$0

Med. Supplies - \$75,915

Other - \$7478

(All percentages are rounded to the nearest whole percent.)

**Department of Law & Public Safety
Division of State police
Aviation Expenditures
1/1/04 through 6/30/04**

Total State Police Air Ambulance Program Expenditures by major account were:

Salaries and Wages (Including Maintenance & Fringe Benefits)	\$1,178,494
Overtime	338,521
Operating Expenses	<u>1,875,576</u>
Total State Police Costs	3,392,591

Breakdown of Operating Expenses by Aircraft:

N1NJ-Dedicated Backup (Sikorsky S-76B)

2200-fuel	236,415
3800-training/travel/charts	40,724
4200-maintenance of helicopters	482,262
	<u>759,401</u>

N5NJ-NORTHSTAR (Sikorsky S-76B)

2200-fuel	64,072
2420-uniforms (flightsuits)	17,400
3800-training/travel/charts	40,724
4100-maintenance of equipment	44
4200-maintenance of helicopters	<u>299,079</u>
	421,319

N7NJ-Dedicated Back-up (Sikorsky S-76B Purchased 7/30/02 placed into service 12/3/02)

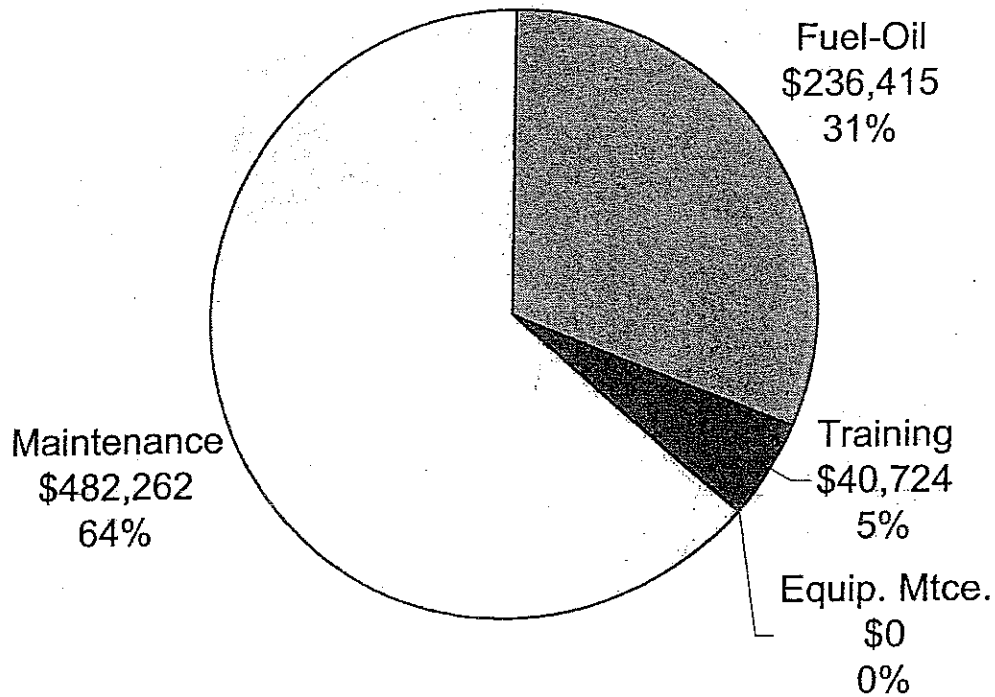
2200-fuel	72,331
3800-training/travel/charts	40,724
4200-maintenance of helicopter	<u>267,103</u>
	380,158

N9NJ-SOUTHSTAR (SikorskyS-76B)

2200-fuel	93,024
3800-training/travel/charts	40,724
4100-maintenance of equipment	
4200-maintenance of helicopter	<u>180,950</u>
	314,698

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Expenditures for N1NJ (Back-Up Sikorsky)



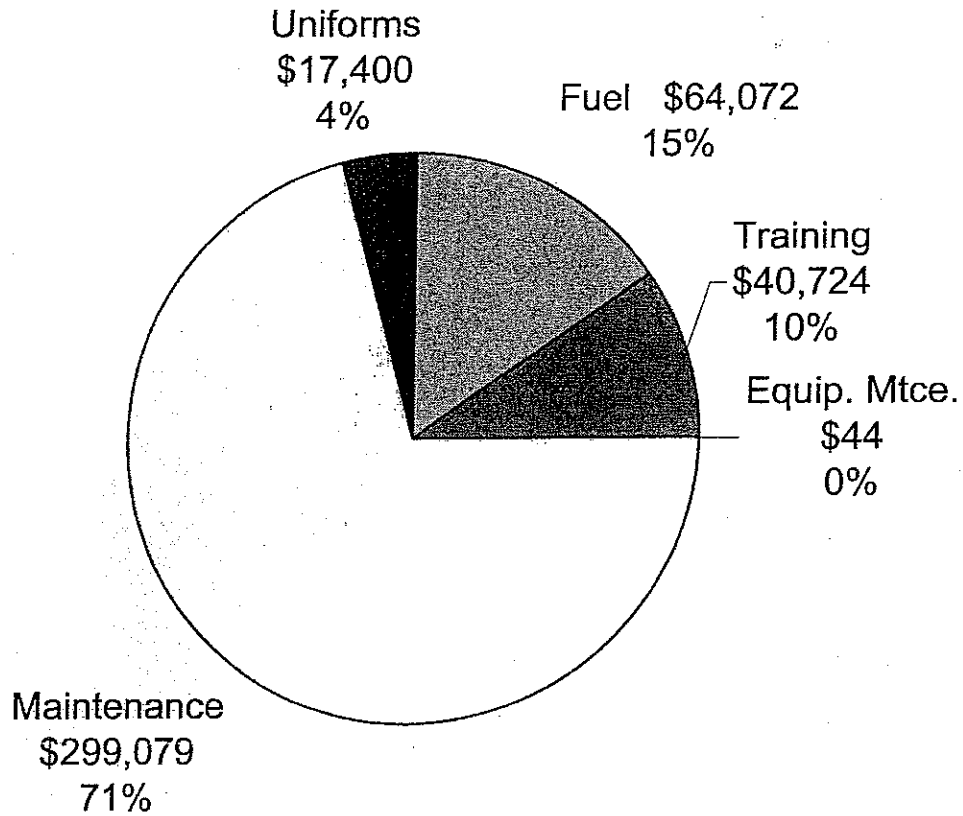
Total Expenditures - \$759,401

**Fuel - \$236,415
Training - \$40,724
Equip. Mtce. - \$0
Maintenance - \$482,262**

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Expenditures for N5NJ (NorthSTAR)



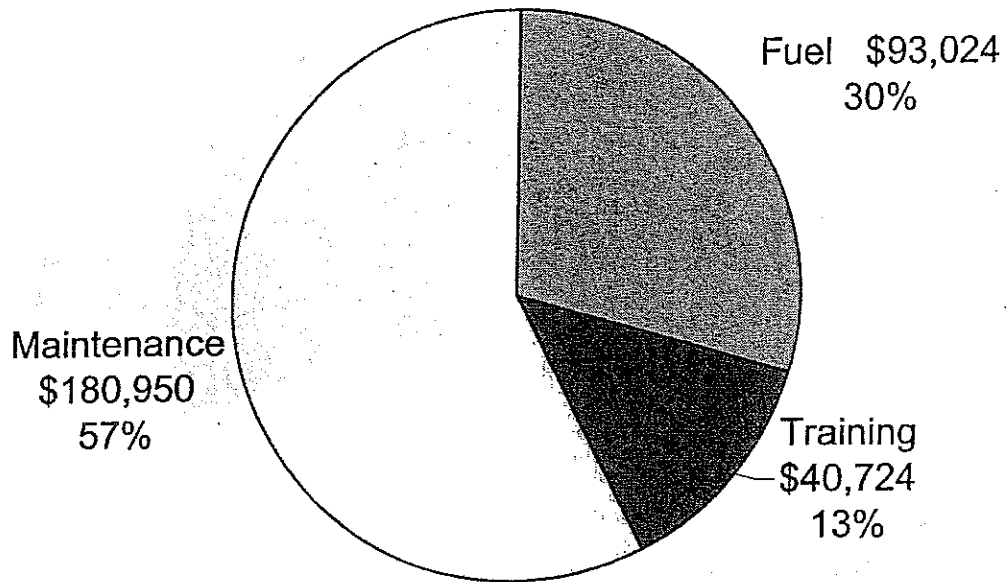
Total Expenditures - \$421,319

**Fuel - \$64,072
Uniforms - \$17,400
Equip. Mtce. - \$44
Training - \$40,724
Maintenance - \$299,079**

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Expenditures for N9NJ (SouthSTAR)



Total Expenditures - \$314,698

Fuel - \$93,024

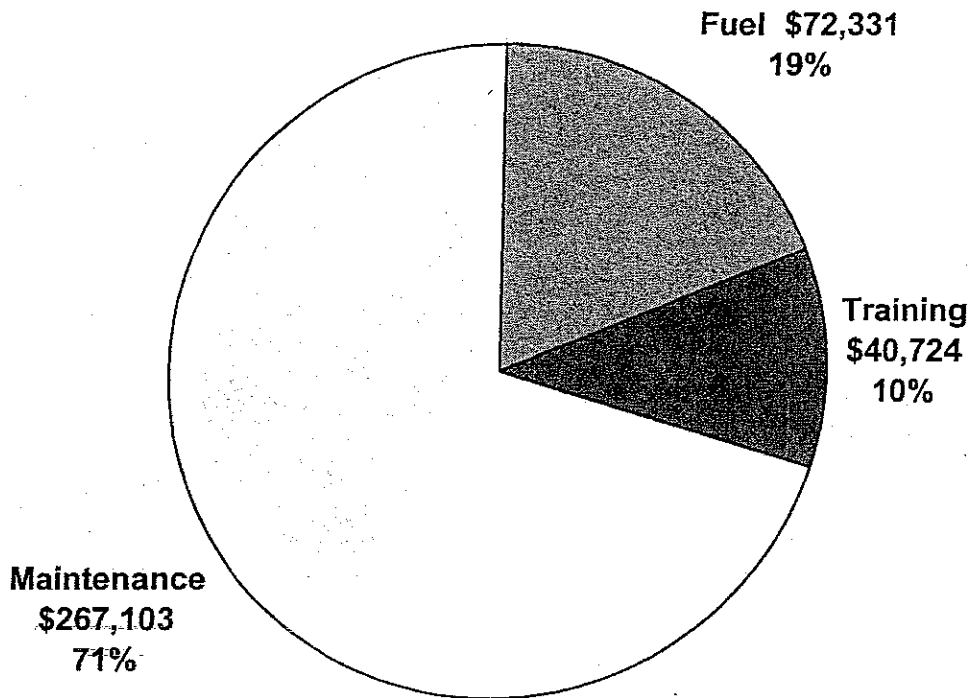
Training - \$40,724

Maintenance - \$180,950

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Expenditures for N7NJ (Back-Up Sikorsky Delivered 12/3/02)

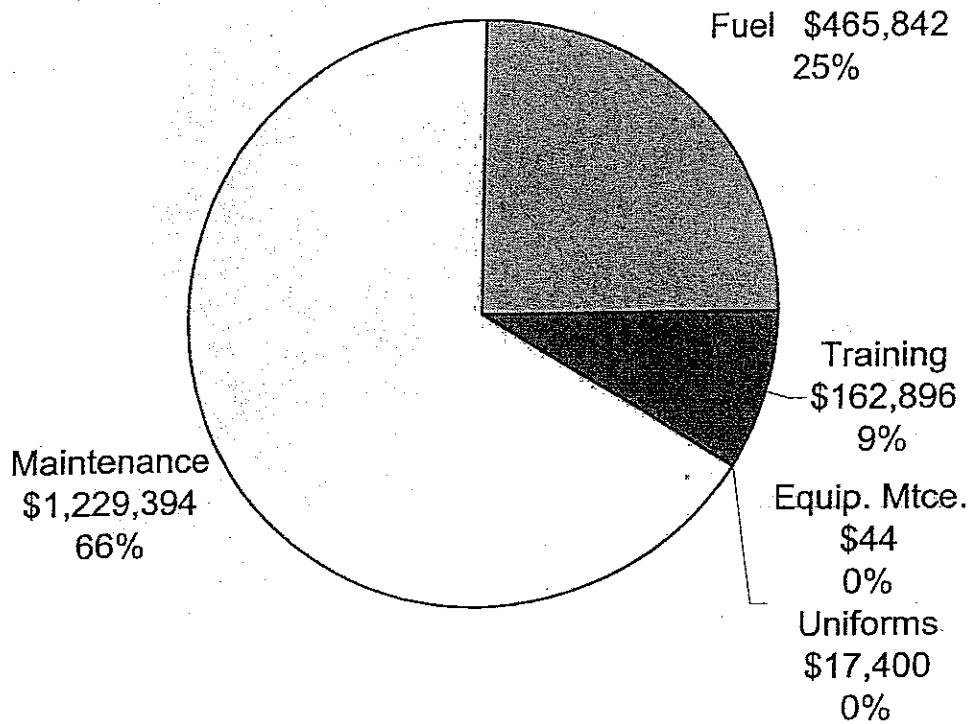


**Total Expenditures - \$380,158
Fuel - \$72,331
Training - \$40,724
Maintenance - \$267,103**

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Overall Expenditures by Account

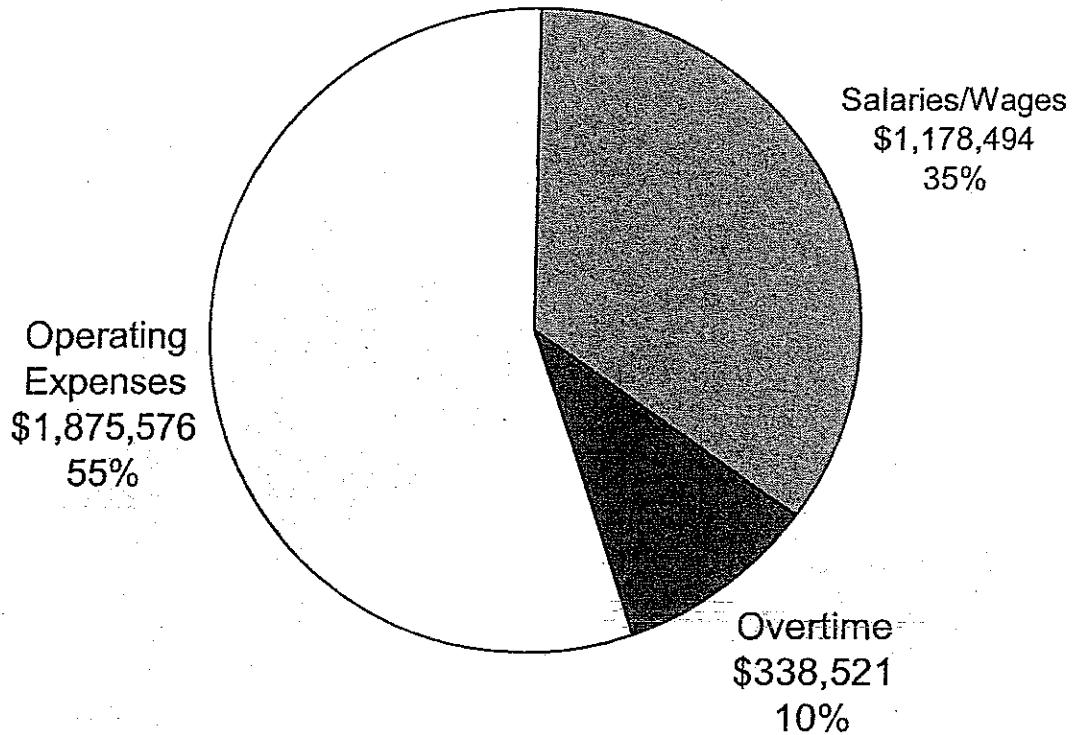


Total Expenditures - \$1,875,576
UNIFORMS-\$17,400
Fuel - \$465,842
Training - \$162,896
Equip. Mtce - \$44
Maintenance - \$1,229,394

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Overall Expenditures by Major Account



Total Expenditures - \$3,392,591

Salaries Wages - \$1,178,494

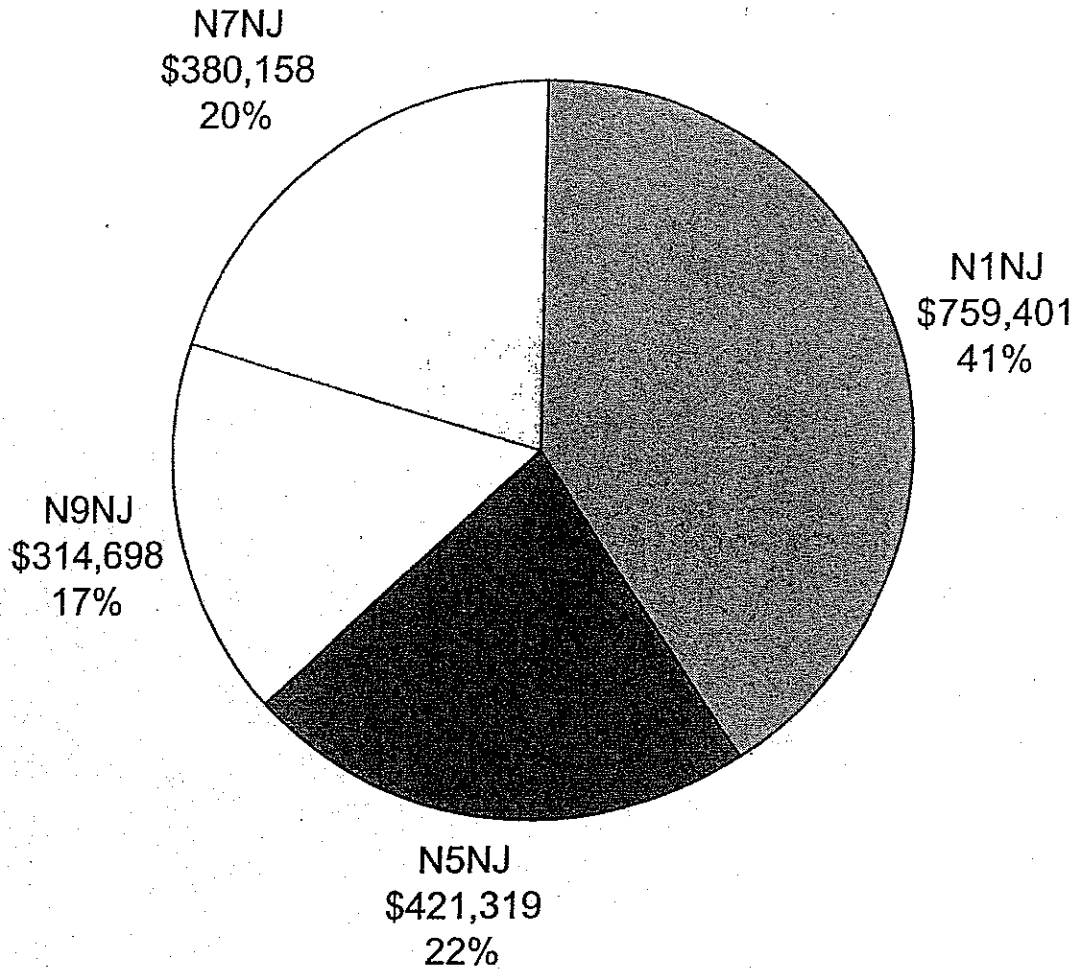
Overtime - \$338,521

Operating Expenses - \$1,875,576

(All percentages are rounded to the nearest whole percent.)

**New Jersey State Police
Aviation Unit
Air Ambulance Program
1/1/04 through 6/30/04**

Operating Expenditures by Aircraft



Total Exepnditures - \$1,875,576

N1NJ - \$759,401 Back-Up Sikorsky

N5NJ - \$421,319 NorthSTAR

N7NJ - \$380,158

Back-Up Sikorsky

N9NJ - \$314,698 SouthSTAR

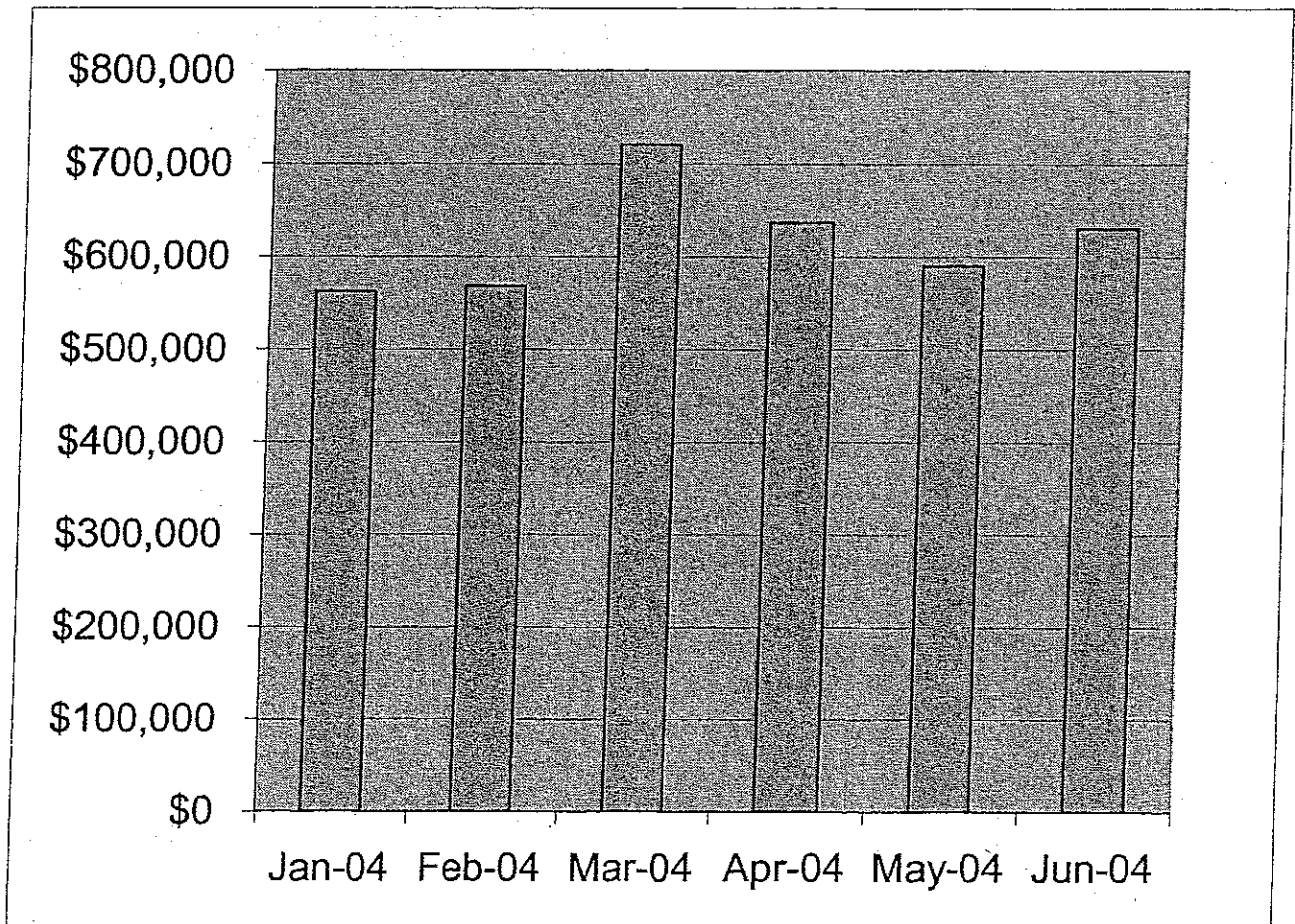
New Jersey Emergency Medical Services Helicopter Response Program

Department of the Treasury - Division of Revenue

Revenues Collected from \$1 Surcharge on Each Motor Vehicle Registration

January 1, 2004 through June 30, 2004

Jan-2004	\$562,594	subject to audit
Feb-2004	\$568,275	subject to audit
Mar-2004	\$720,711	subject to audit
Apr-2004	\$636,946	subject to audit
May-2004	\$590,342	subject to audit
Jun-2004	\$630,490	subject to audit
PERIOD TOTAL	\$3,709,358	



New Jersey Emergency Medical Services Helicopter Response Program

Department of the Treasury - Division of Revenue

Revenues Collected from \$1 Surcharge on Each Motor Vehicle Registration

1993 - Calendar Year Collections:	\$5,871,732
1994 - Calendar Year Collections:	\$5,959,279
1995 - Calendar Year Collections:	\$5,922,359
1996 - Calendar Year Collections:	\$6,095,450
1997 - Calendar Year Collections:	\$6,156,156
1998 - Calendar Year Collections:	\$5,948,028
1999 - Calendar Year Collections:	\$6,519,542
2000 - Calendar Year Collections:	\$6,593,593
2001 - Calendar Year Collections:	\$6,881,041
2002 - Calendar Year Collections:	\$7,243,879
2003 - Calendar Year Collections:	\$10,498,025
2004 - Calendar Year Collections:	\$3,709,358 - thru June 30, 2004

