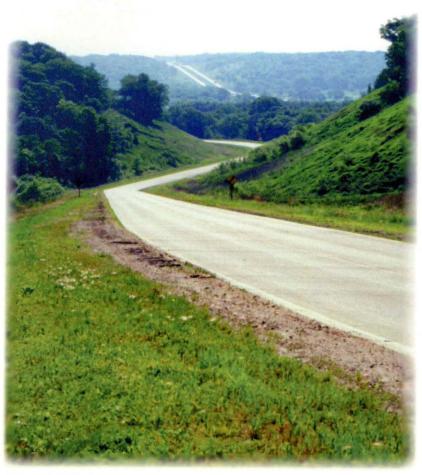
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Quick Guide to Iowa Transportation Statistics



December 2000

Acknowledgments

Thanks go to the following for their assistance and/or sponsorship in the preparation of this guide:

Iowa Concrete Paving Association University of Iowa Public Policy Center Iowa Department of Transportation Center for Transportation Research and Education at Iowa State University

Data Sources

Iowa Department of Transportation U.S. Department of the Census U.S. Army Corps of Engineers Iowa Department of Economic Development Federal Highway Administration

HIGHWAYS	PAGE 2
RAIL	PAGE 18
AVIATION	PAGE 22
WATERWAY/PIPELINE	PAGE 29
TRANSIT	PAGE 32



Iowa Transportation Statistics at a Glance

Total Land Area (Square Miles) Number of Cities	55,965 949	
Number of Counties	99	
Resident Population (Estimated)	2,861,025	
Wage and Salary Jobs	1,518,880	
Total Personal Income (\$ Million)		
Per Capita Personal Income	\$ 24,745	
Miles of Roads	113,226	
Miles of Railroad Track	4,275	
Transit Systems	35	
Commercial Airports	10	
General Aviation Airports	103	

Freight moved by

Truck (1997)	110,747,000	Tons Shipped or Received
Rail	76,700,000	Tons Shipped or Received
Waterway	14,404,000	Tons Shipped or Received
Air	171,174	Tons Shipped or Received

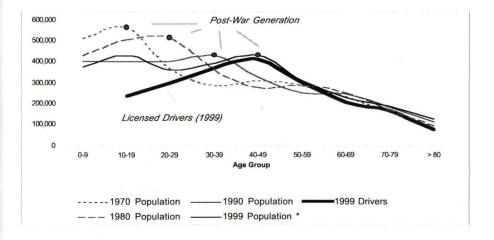
Personal Transportation by

Passenger Vehicle	29,726	Million Vehicle Miles Traveled
Transit	22,400,000	Boardings
Aviation	1,541,599	Boardings
Rail (Amtrak)	54,192	Boardings

Iowa Licensed Drivers by Age

		Po	pulation			
Age			d		Licensed	
Group	<u>1970</u>	<u>1980</u>	<u>1990</u>	1999*	1999 Drivers	Percent
0–9	513,313	432,669	402,541	376,512		
10–19	566,915	509,333	403,633	434,274	240,017	11%
20–29	371,196	515,224	403,035	365,337	302,356	14%
30–39	289,204	367,200	434,123	397,180	372,597	18%
40-49	313,081	276,971	329,253	433,226	414,059	20%
50-59	293,275	291,756	250,711	311,534	304,502	15%
60–69	234,800	250,976	249,807	228,294	210,830	10%
70–79	164,963	172,053	188,993	192,139	171,291	8%
> 80	77,629	97,626	114,659	130,917	76,122	4%
	2,824,376	2,913,808	2,776,755	2,869,413	2,091,774	100%
Mediar Age:	28.8	30.0	34.0	36.9		

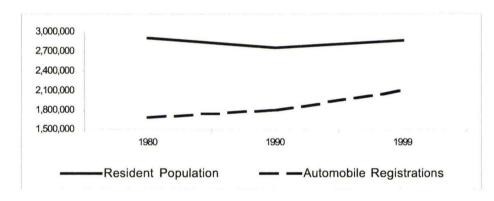
^{*} Projected from 1990 Census; note that number of licensed drivers in 50–59 age group exceeds population estimate.



In 1998, lowa ranked fifth highest in the nation in the percentage of its population over 65 years of age. The population curves above represent age distributions at four different times during the past 30 years. Note that with each decade that passes, the distribution becomes increasingly "older" as the post-war population boom matures. Consequently, in 1999, the highest number of licensed drivers in lowa were among the 40–49 year age category and heading toward retirement in the next couple of decades. Preparing for the transportation needs of an increasingly older constituency will continue to gain in significance for lowa over the next several years.

Motor Vehicle Registrations

	1980	1990	1999	Change Since 1980
Automobile Registrations	1,678,976	1,791,146	2,105,514	25%
Resident Population	2,913,808	2,759,727	2,861,025	-1.8%
Vehicles Registered/ Population	0.58	0.65	0.74	



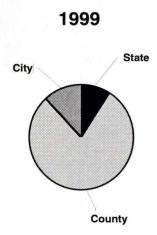
1999 Licensed Drivers	2,091,774
% of Total Population	73%
Personal Vehicles/Driver	1.01
Personal Vehicles per Capita	0.74

From 1980 through 1999 the number of personal vehicle registrations increased roughly 27 percent more than the overall population decreased.

Miles of Public Roads

	1980	1985	1990	1999	
State*	10,464	10,157	10,132	10,130	
County	89,527	89,617	89,494	89,209	
City	11,780	12,505	12,775	13,394	
Total	111,771	112,279	112,401	112,734	

^{*} Includes interstate, U.S., and Iowa routes, but does not include state maintained institutional roads (approximately 493 miles in 1999).



Since 1980 total roadway mileage has remained somewhat constant, with an overall increase of only one percent, while city street mileage has increased by 14 percent.

Million Vehicle Miles Traveled (VMT) (1999)

			County Roads/	
	Interstates	Other State	City Streets	Total
Miles of Road* 1999:	1,043	9,087	102,603	112,734
Vehicle Miles Traveled				
Passenger Cars	5,093	10,170	10,816	26,079
Straight Trucks/Buses	268	454	421	1,143
Combination Trucks	1,357	857	290	2,504
Total	6,718	11,481	11,527	29,726
Percent trucks:	24%	11%	6%	

^{*} Does not include approximately 493 miles of state maintained institutional roads.

Passenger vehicles account for 87 percent of all vehicle miles traveled, but trucks account for 24 percent of vehicle miles traveled on interstate highways. Over 80 percent of all truck travel is on the state highway system.

City vs. Rural Use (Million VMT)

	Rural	City	Total
Miles of Road* 1999:	97,844	14,889	112,734
Vehicle Miles Traveled			
Passenger Cars	14,910	11,169	26,079
Straight Trucks/Buses	854	289	1,143
Combination Trucks	2,109	395	2,504
	<u> </u>		
Total	17,873	11,853	29,726
Percent	60%	40%	100%

^{*} Does not include approximately 493 miles of state maintained institutional roads.

Sixty percent of all vehicle miles traveled occurs outside of cities.

Growth in Use (Million VMT)

Interstate				Net
	1980	1990	1999	Growth
Passenger Cars	2,171	3,667	5,093	135%
Straight Trucks/Buses	147	195	268	82%
Combination Trucks	584	913	1,357	132%
	2,902	4,775	6,718	131%
Other State		,		
Passenger Cars	7,096	8,185	10,170	43%
Straight Trucks/Buses	433	395	454	5%
Combination Trucks	513	709	857	67%
	8,042	9,289	11,481	43%
County Roads and City S	treets			
Passenger Cars	6,672	8,471	10,816	62%
Straight Trucks/Buses	592	382	421	-29%
Combination Trucks	97	248	290	199%
	7,361	9,101	11,527	57%
	18,305	23,165	29,726	62%
14,000 12,000 10,000 8,000 6,000 4,000 2,000				_
1980	1985	1990	1995	1999
	erstate unty Roads and	I City Streets	- Other State	

VMT has increased a total of 62 percent since 1980 while total miles of road network have remained essentially fixed. Interstate traffic has grown at over twice the overall rate.

Growth in Use (Million VMT)

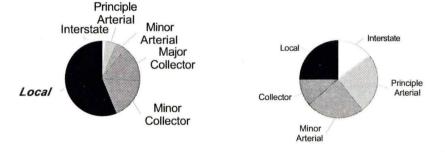
	1980	1990	1999	Net Growth
Rural Passenger Cars	9,407	11,698	4,910	58%
Straight Trucks/Buses	777	735	854	10%
Combination Trucks	995	1,633	2,109	112%
	11,179	14,066	17,873	60%
City Passenger Cars	6,532	8,625	11,169	71%
Straight Trucks/Buses	395	237	289	-27%
Combination Trucks	199	237	395	98%
Sub-total	7,126	9,099	11,853	66%
Grand Total	18,305	23,165	29,726	62%
Percent Rural:	61%	61%	60%	

City and rural VMT have grown at approximately the same rate since 1980 (60–66 percent). The percentage of VMT in rural and city areas has also remained fairly constant.

Bridges and Structures by Type of Road - 1997

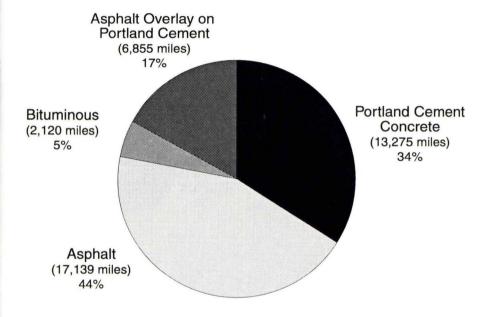
Interstate:	396			
Principle Arterial:	1,092		Interstate:	258
Minor Arterial:	1,095		Principle Arterial:	415
Major Collector:	3,471	*	Minor Arterial:	410
Minor Collector:	4,048		Collector:	197
Local:	12,921		Local:	425
Total:	23,023		Total Urban:	1,705

Total Structures: 24,728



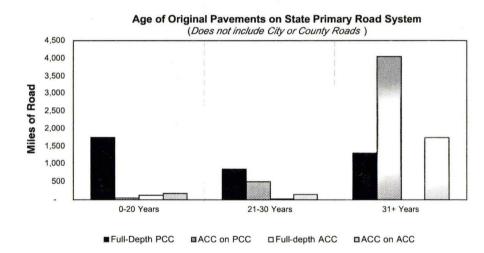
lowa has over 24,000 bridges and structures, and is fifth highest in the nation following Texas, Ohio, Kansas, and Illinois. In 1998, over 27 percent of the bridges on lowa's county roads had weight embargoes.

Paved Roads in Iowa (State, City, and County)



Age of Original Pavements on State Primary Road System

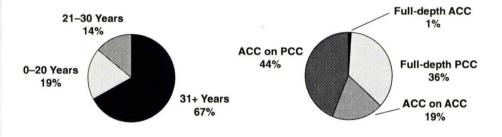
	0-20 Years	21-30 Years	31+ Years	Total
Full-depth ACC	135	* 25	-	160
Full-Depth PCC	1,735	870	1,310	3,915
ACC on ACC	165	145	1,750	2,060
ACC on PCC	55	500	4,045	4,600
Total:	2,090	1,540	7,105	10,735



Pavement mileage for each direction of travel on divided roadways is included separately.

Total System Age

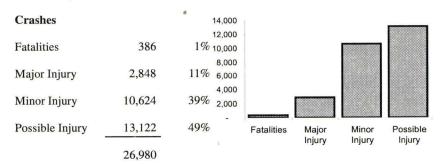
Total System Pavement



Two-thirds of the pavements on lowa's state primary road system were originally constructed over 30 years ago. Surface treatments have maintained the life of the pavements over the years. Replacing and rehabilitating older, existing roadways will become increasingly important in the near future as older roads approach the end of their design life.

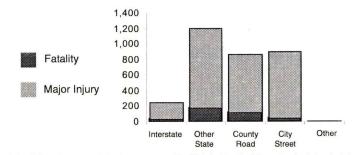
1998 Crash Statistics in Iowa

Crashes by Severity of Injuries



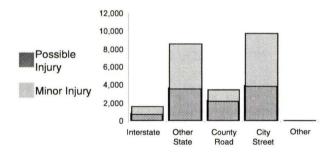
Fatality and Major Injury Crashes

	Fatality Crashes	Major Injury Crashes	Sum
Interstate	34	219	253
Other State	177	1,032	1,209
County Road	122	742	864
City Street	53	848	901
Other	0	7	7
	386	2,848	3,234



Minor and Possible Injury Crashes

	Minor Injury	Possible	
	Crashes	Injury Crashes	Sum
Interstate	743	953	1,696
Other State	3,622	4,991	8,613
County Road	2,269	1,241	3,510
City Street	3,951	5,914	9,865
Other	39	23	62
	10,624	13,122	23,746



Major injury = incapacitating Minor injury = bruises/abrasions Possible injury = complaint of pain

Fatality and Major Injury Crash Trend in Iowa

	Fatality Crashes	Major Injury Crashes	Sum	Million VMT Travelled	Fatality and Major Injury Crashes Per Million VMT
1990	403	2,751	3,154	23,165	.14
1991	424	2,577	3,001	23,572	.13
1992	388	2,624	3,012	24,411	.12
1993	399	2,452	2,851	25,396	.11
1994	416	2,504	2,920	26,038	.11
1995	446	2,675	3,121	26,655	.12
1996	411	2,642	3,053	27,586	.11
1997	411	2,742	3,153	28,403	.11
1998	386	2,848	3,234	29,192	.11



Minor and Possible Injury Crash Trend in Iowa

	Minor Injury Crashes	Possible Injury Crashes	Sum	Million VMT Travelled	Minor and Possible Injury Crashes Per Million VMT	Total Crashe Per Million VMT
1990	10,172	9,558	19,730	23,165	0.85	0.99
1991	9,729	9,600	19,329	23,572	0.82	0.95
1992	10,212	12,295	22,507	24,411	0.92	1.05
1993	10,429	13,933	24,362	25,396	0.96	1.07
1994	10,418	14,467	24,885	26,038	0.96	1.07
1995	11,158	15,218	26,376	26,655	0.99	1.11
1996	10,588	15,062	25,650	27,586	0.93	1.04
1997	10,746	15,001	25,747	28,403	0.91	1.02
1998	10,624	13,122	23,746	29,192	0.81	0.92
1.20				-		
1.00						
0.80						
0.60						
0.40						
0.20						
0.00	1990 1991	1992 1993	1994	1995 19	996 1997 19	98
	_	→ Minor and Po	ssible Injury C	crashes Per Mil	lion VMT	

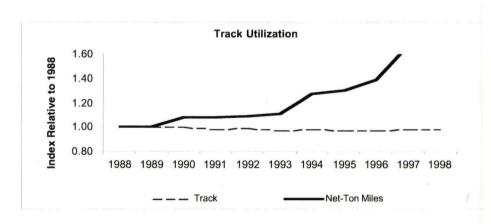
Total Crashes Per Million VMT

1998 Rail Summary of Iowa

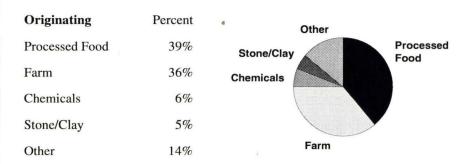
Million Tons of Freight Shipped		36
Million Tons of Freight Received	d	41
		77
Amtrak Passengers		54,192

	Number of Railroad Companies	Miles of Track Owned*	Million Iowa Net Ton-Miles	
Class I	3	2,354	47,707	
Class II	4	1,562	4,965	
Class III	10	320	215	
Total	17	4,236	52,886	

^{*} Does not include 39 miles of track in Iowa owned by the state of South Dakota



Types of Commodities Moved by Rail (1998)



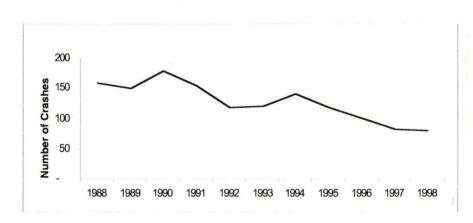
Terminating

Coal	55%	Other
Farm	17%	Processed Food
Chemicals	9%	Chemicals
Processed Food	6%	
Other	13%	Farm

Number of Rail Crossings

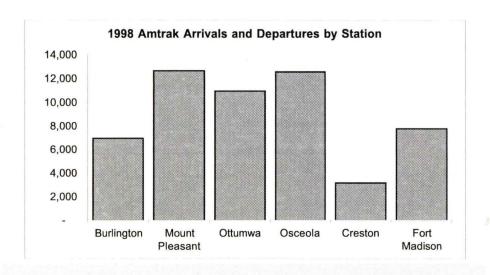
	1988	1998	Change
Separated	809	761	-6%
Signals and Gates	541	670	24%
Signals Only	1,015	1,018	0%
Crossbucks/Signs	3,967	3,304	-17%
Total	6,332	5,753	-9%

Rail/Highway Crossing Crashes



Passengers Arriving and Departing from Iowa Amtrak Stations

1988	6 53,124
1989	51,302
1990	51,719
1991	52,958
1992	51,914
1993	46,603
1994	53,152
1995	47,968
1996	43,016
1997	48,473
1998	54,192



Number of Airports

Commercial	10
General Aviation	103
	113
General Aviation Airports	
Paved Primary Runway	87
Turf Primary Runway	16
	103
Number of Airports with	
Runway Lighting	104
Automated Weather Observation	47
4,000-4,999 foot runways	36
5,000+ foot runways	24
Precision Approach	13
Number of Based Aircraft	2,300
Number of Registered Pilots	6,200

	1999 • Airports	Takeoffs/ Landings	Average Per Facility
Commercial Service	10	426,701	42,670
General Aviation	103	601,173	5,837
Total	113	1,027,874	9,090

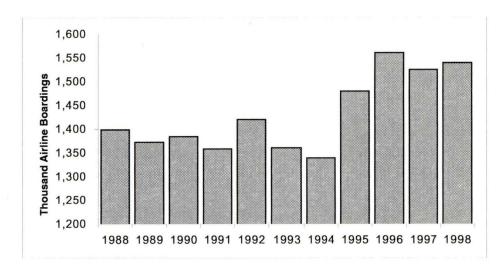




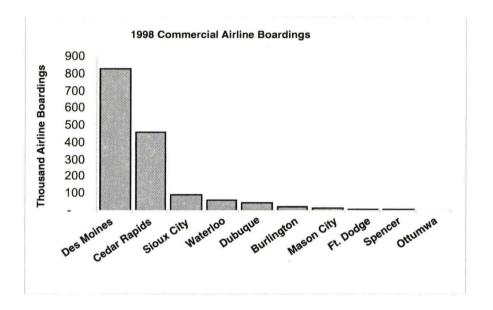


The greatest number of takeoffs and landings in lowa are at general viation airports.

Commercial Airline Boardings



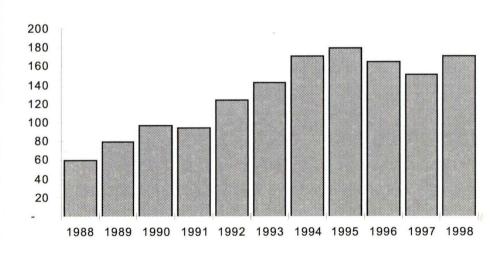
Locations of 1998 Commercial Airline Boardings



Tons of Air Cargo Handled

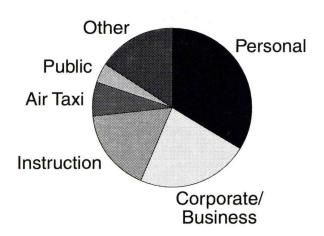
Thousand Tons

1988	60
1989	80
1990	98
1991	95
1992	125
1993	143
1994	172
1995	180
1996	165
1997	152
1998	171

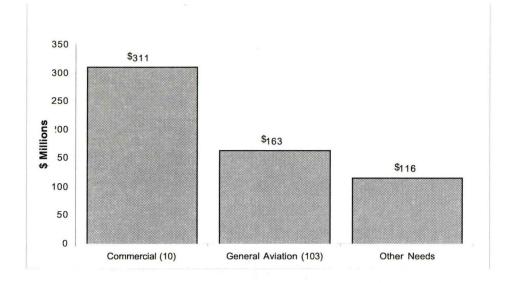


Primary Uses of General Aviation Aircraft

Personal	34.1%
Corporate/Business	22.5%
Instructional	17.0%
Air Taxi	6.5%
Public	3.9%
Other	16.0%



Projected 20 Year Airport Runway/ Taxiway/Apron Needs in Iowa



Iowa Water Transportation

	Navigable	Navigable	
	Miles	6	Terminals
Mississippi	309		66
Missouri	182		13
	491		79

Mississippi River Locks

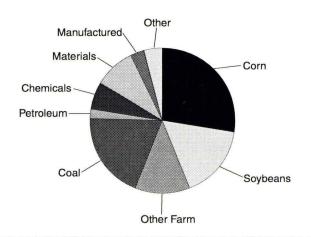
Average age:	61
320 ft Chamber	2
600 ft Chamber	10
1200 ft Chamber	1
	13

Freight Movements (Thousand Tons)

1988:	17,549		
1998:	14,391		

1998 Waterway Freight Movements by Major Commodity Group (1,000Tons)

	Mississippi River	Missouri River	Total
Corn	3,895,007	37,739	3,932,746
Soybeans	2,341,862	30,626	2,372,488
Other Farm	1,720,674	49,357	1,770,031
Coal	2,697,547	0	2,697,547
Petroleum	268,323	0	268,323
Chemicals	774,704	122,868	897,572
Materials	1,343,454	0	1,343,454
Manufactured	503,451	0	503,451
Equipment	9,590	0	9,590
Other	523,693	72,511	596,204
	14,078,305	313,101	14,391,406



1995 Pipeline Infrastructure

	Carriers	In-State Miles
Natural Gas	6	7,689
Petroleum	9	4,033
Anhydrous Ammonia	2	657
	17	12,379

1995 Deliveries:

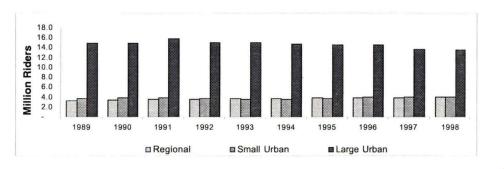
Billion Cubic Feet Natural Gas:	242.2	
Billion Gallons Petroleum:	2	

1998 Public Transit Systems

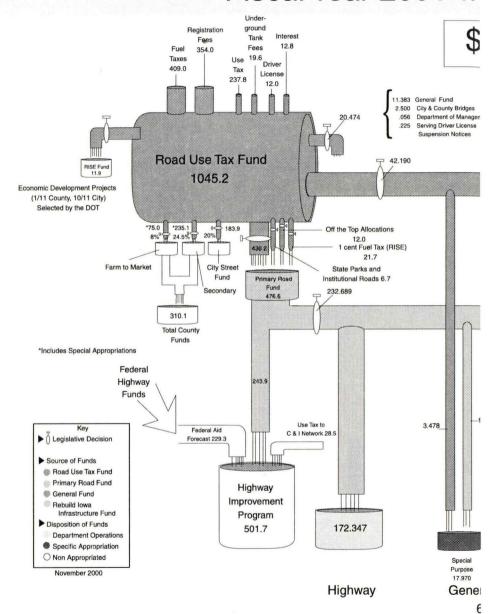
		Annual	Revenue		
	Number of Systems	Ridership (thousand)	Miles (thousand)	Number of Vans	Number of Buses
Regional	16	4,048	12,609	362	473
Small Urban	8	4,119	2,508	13	126
Large Urban	11	13,587	8,231	92	392
Total	35	21,754	23,348	467	991

Transit Ridership (Millions)

	Regional	Small Urban ^e	Large Urban	Total
1989	3.3	3.8	14.9	22.0
1990	3.5	3.9	15.0	22.4
1991	3.7	3.9	15.9	23.4
1992	3.7	3.8	15.2	22.7
1993	3.8	3.7	15.1	22.6
1994	3.8	3.6	14.8	22.2
1995	4.0	3.8	14.6	22.4
1996	4.0	4.2	14.7	22.8
1997	4.0	4.1	13.7	21.8
1998	4.0	4.1	13.6	21.8
Net Change:	22.7%	8.4%	-8.8%	-1.1%



Iowa Departmer Fiscal Year 2001 Tr

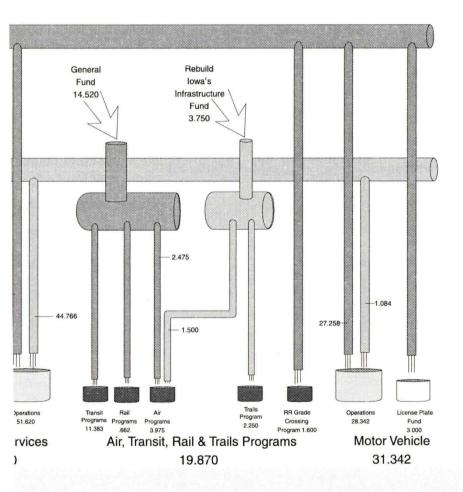


of Transportation asportation Funding



Draft

- .067 Department of Personnel
- 174 Motorcycle Education
- 5.169 Traffic Safety Improvement
- .650 County Treasurer's Equipment .250 Living Roadway Trust Fund



Iowa Department of Transportation (DOT)

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800 Lincoln Way Ames, Iowa 50010 Phone (515) 239-1111

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Director's Staff: General Counsel:

Highway:

Information Technology:

Legislative Liaison:

Modal:

Motor Vehicle:

Operations and Finance: Planning and Programming:

Research Management:

Mary Christy David Ferree

Tom Cackler, P.E.

Steve Gast

Elizabeth Baird

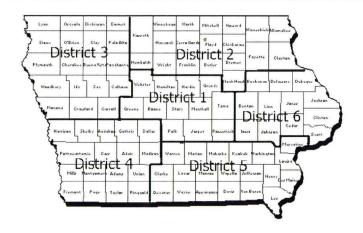
Neil Volmer, P.E. Shirley Andre

Nancy Richardson

Dennis Tice

Ian MacGillivray, P.E.

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Phone: (515) 239-1635

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Phone: (641) 423-7584

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Phone: (712) 276-1451

District 4

District Engineer: John Selmer, P.E.

63200 White Pole Road Atlantic, IA 50022

Phone: (712) 243-3355

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Phone: (641) 472-4171

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District Engineer: Richard Kautz, P.E.

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Cedar Rapids, IA 52406-3150

Phone: (319) 364-0235

Iowa Metropolitan Planning Organizations (MPO) and Regional Planning Affiliations (RPA)

Metropolitan Planning Organizations (MPO)

MPOs are designated by the governors of states to carry out federal requirements for transportation planning and programming in urbanized areas, generally places with core cities of 50,000 population and over. There are eight MPOs in Iowa that prepare comprehensive long-range transportation plans for their areas and program the highway and public transit projects and funds needed to carry out those plans in cooperation with the Iowa DOT. They also prepare specialized transportation planning studies as needed. The eight MPOs in Iowa cover the Cedar Rapids, Des Moines, Dubuque, Iowa City, Omaha/Council Bluffs, Quad Cities, Sioux City, and Waterloo/Cedar Falls metropolitan areas. Their boundaries are set to include the built-up areas, including suburbs, surrounding the core city (called the Urbanized Area). The Dubuque, Omaha/Council Bluffs, Quad Cities, and Sioux City MPOs extend into adjacent states. It is possible that Ames will attain MPO status when the results of the 2000 Census are released.

Regional Planning Affiliations (RPA)

RPAs cover the entire state of Iowa and perform transportation planning and programming functions in non-metropolitan areas. Like the MPOs, they were established to perform regional transportation planning and programming. RPAs are responsible long-range transportation planning and the programming of federal-aid eligible projects (highway and transit) within the region in cooperation with the Iowa DOT. There is some overlap in Iowa between MPOs and RPAs both geographically and administratively. For instance, in the Des Moines area the same agency serves as the MPO and RPA. However, in some parts of Iowa (for example the Iowa City area) different agencies act as MPOs and RPAs.

Metropolitan Planning Organizations (MPO)

Cedar Rapids Jim Halvorson City Hall, Sixth Floor Cedar Rapids, IA 52401 Phone: (319) 286-5041

Council Bluffs Louis Violi 2222 Cuming Street Omaha, NE 68102 Phone: (402) 444-6866

Davenport Gary Vallem P.O. Box 3368 Rock Island, IL 61204-3368 Phone: (309) 793-6305

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