



Navajo Nation School Bus Routes

- Larry Ute Joe, Senior Planner
 - Department of Planning
 - Northern Navajo Agency

- Contact:

- 505-368-1552
- 928-640-1657

- Email: ljoe@navajodot.org





Sanostee Bus Route, N34



Shiprock Bus Route, Northwest Subdivision



GadiiAhi Bus Route, N57.

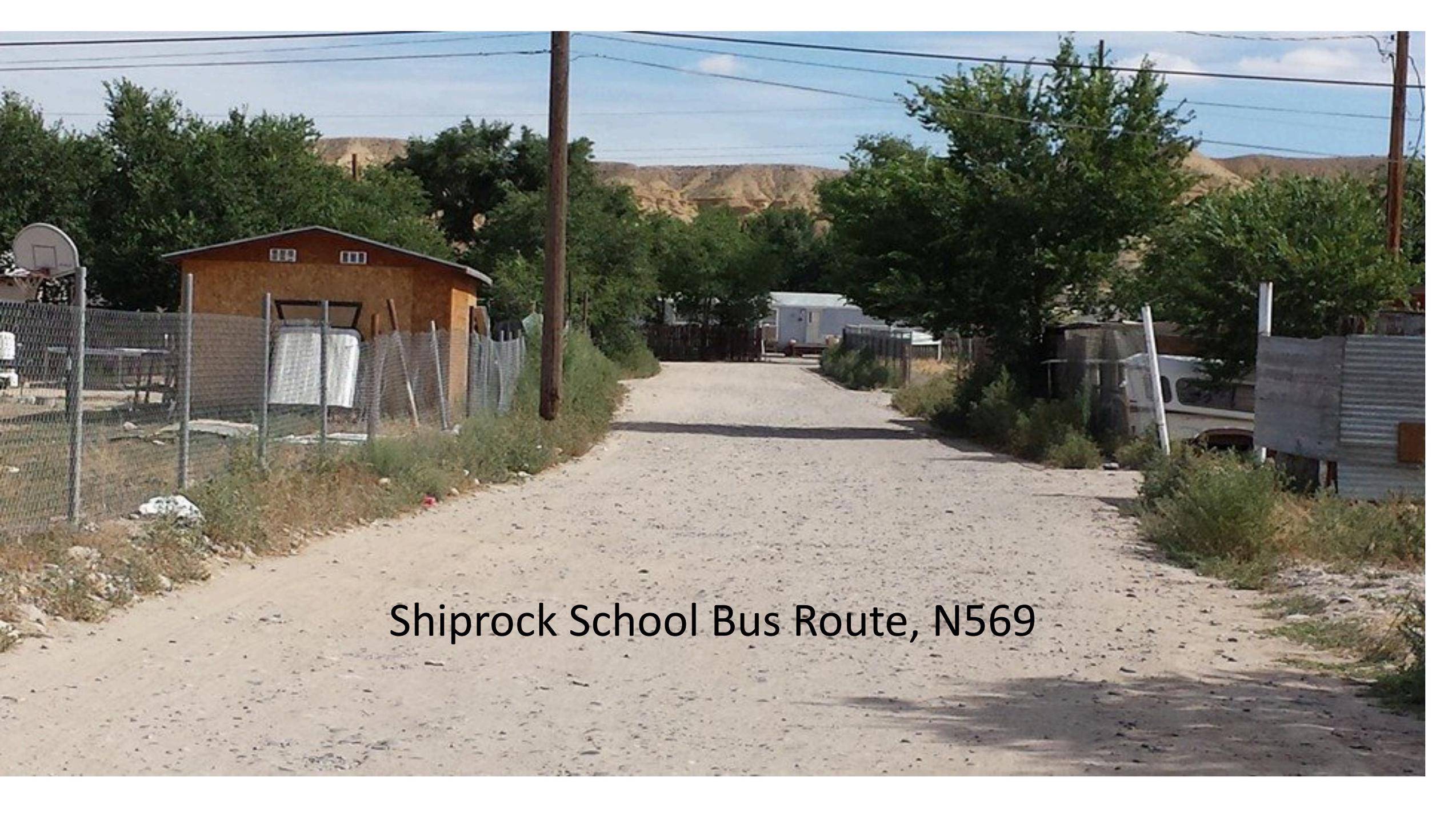


Shiprock Northwest Subdivision



Shiprock Bluff School Bus Route, N546





Shiprock School Bus Route, N569

Shiprock Bluff Road N546



Red Valley School Bus Routes, N132



Red Valley School Bus Routes, N5012



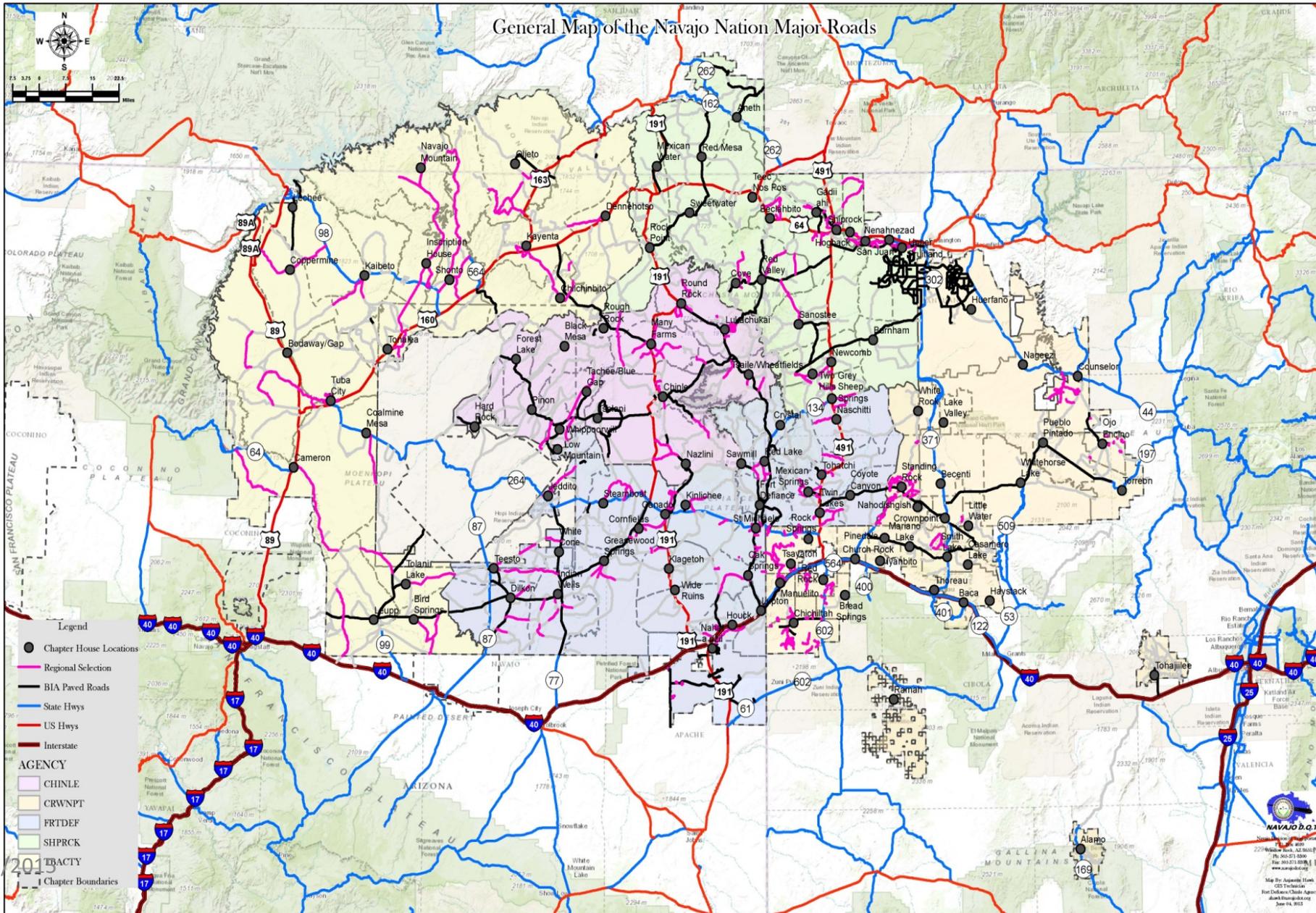
Upperfruitland School Bus route, N367



Navajo Division of Transportation Organizational Chart



Navajo Nation Reservation



School Bus Road Improvements by Chapters in Northern Agency

There are 14 of 20 Navajo Nation Chapters located in New Mexico, San Juan.

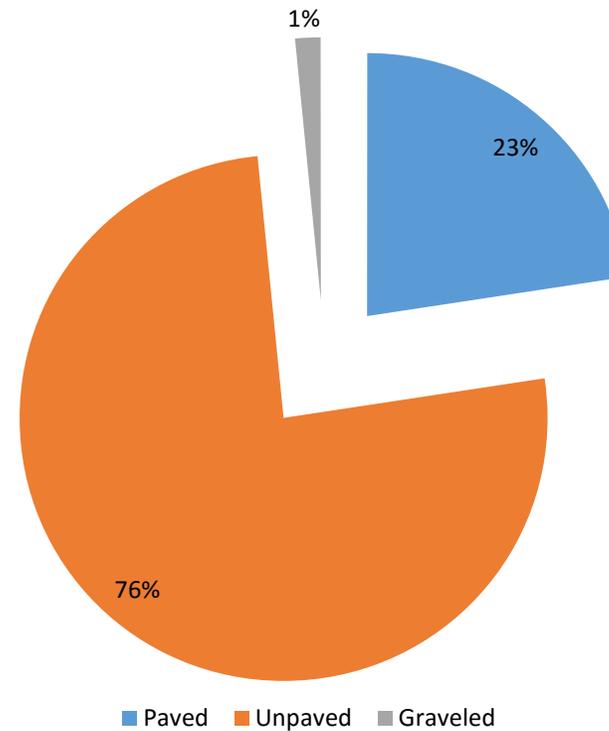
<u>Chapter</u>	<u>Populations</u>
1. Upperfruitland Chapter	2,700
2. Nenannezad Chapter	1500
3. San Juan Chapter	1100
4. TseDaaKaan (Hogback) Chapter	1,200
5. Shiprock Chapter	8300
6. GadiiAhi (Cudeii) Chapter	1200
7. Beclabito Chapter	975
8. Red Valley Chapter	1300
9. TseAlnaozt'ii (Sanostee)Chapter	2800
10. Newcomb Chapter	929
11. TiisTsoSikaad (Burnham) Chapter	1050
12. Two Grey Hills Chapter	750
13. Sheep Springs Chapter	895
14. Naschitti Chapter- Fort Defiance Agency	1200
15. Total	25,899

NAVAJO NATION PUBLIC ROAD SYSTEM

About 15,000 miles of Public Roads on the Navajo Nation

- State – 1,642 miles (including US 491)
- Counties – 1,864 miles
- BIA – 6,217 miles
- Navajo Nation– 5,010 miles

- Total Paved Roads = 3,381 miles (23%)
- Total Unpaved Roads = 11,352 miles (76%)
- Total Graveled Roads = 234 miles (1%)



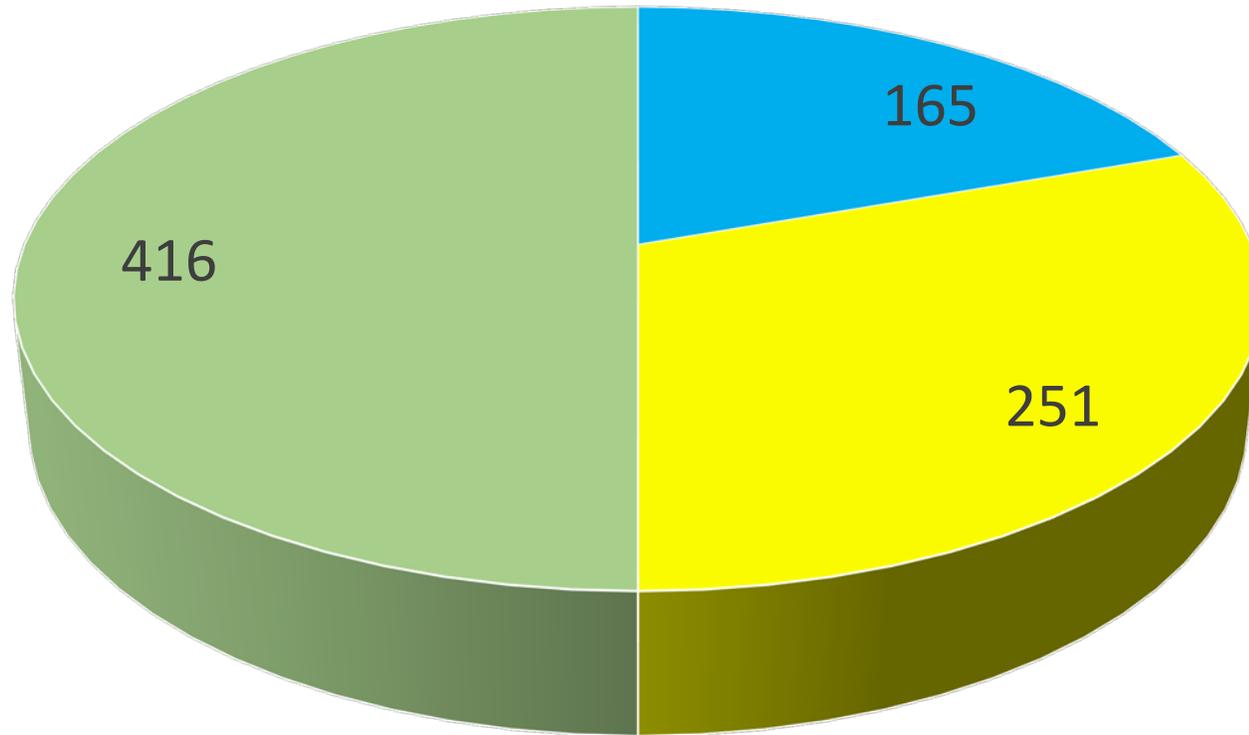
Local Schools in San Juan County and on Navajo Nation

School Name	Enrollment
Career Prep High School	167
Eva B Stokely Elementary	386
Judy Nelson Elementary	565
Kirtland Central High School	795
Kirtland Early Childhood	108
Kirtland Elementary	640
Kirtland Middle School	459
Mesa Elementary School	304
Naschitti Elementary	110
Newcomb Elementary School	308
Newcomb High	228
Newcomb Middle School	166
Nizhoni Elementary	542
Ojo Amarillo Elementary	461
Shiprock High School	648
Tse Bit'Ai Middle School	490
District	6377

BIA Schools Enrollment for 2015-2016

BIA Schools in San Juan, New Mexico and on Navajo Nation	
Beclabito Day School k-4	50
Nenahnezad k-6 grade	165
Red Rock k-8 grade	187
Sanostee Day school k-4	63
Shiprock Atsa Biyaazh Elem	247
Shiprock Jr./High school	195
Total for BIA Schools	907

Northern Agency, N.M. School Bus Miles Dirt Road

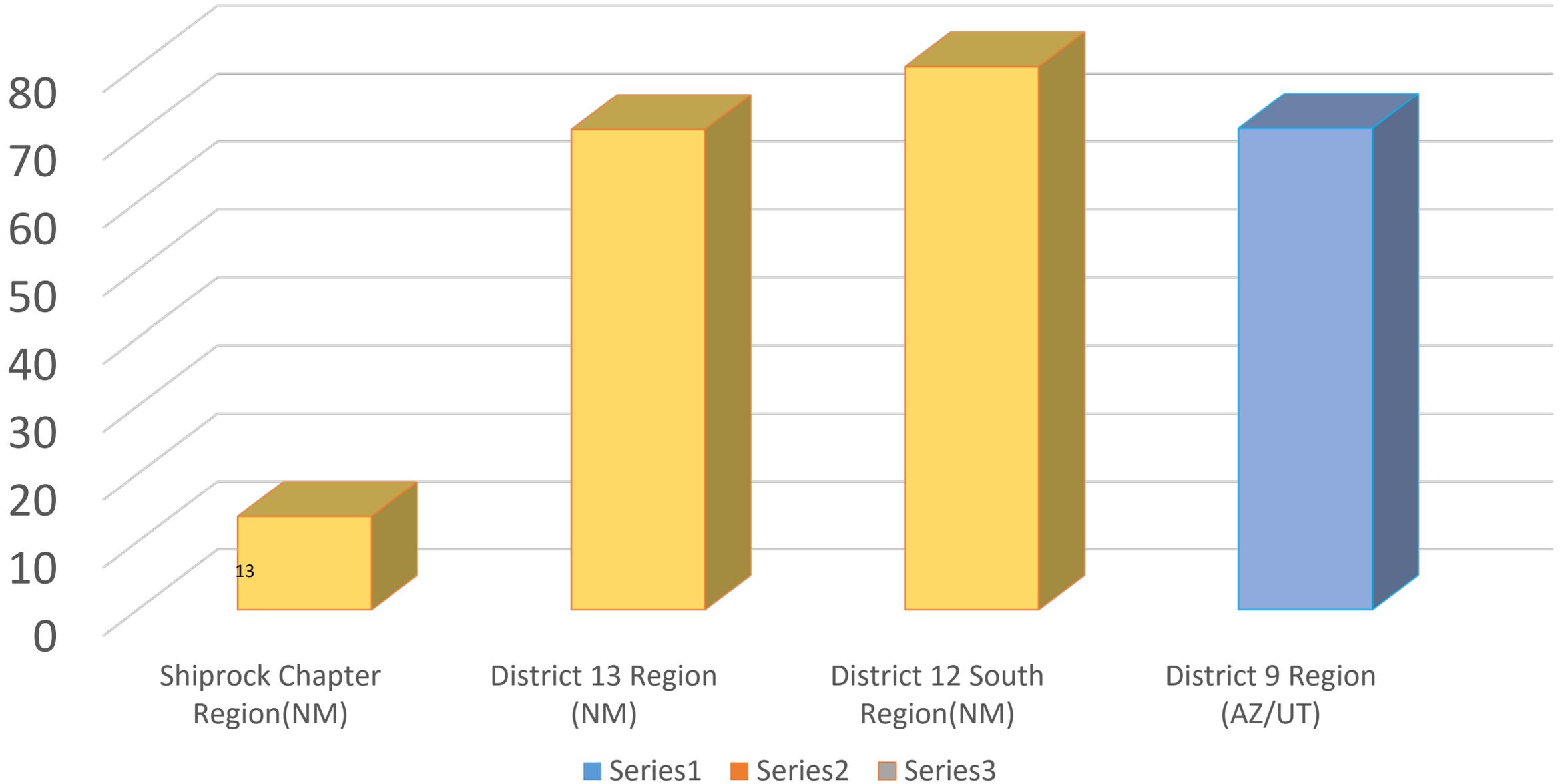


■ NDOT

■ BIA

■ Total

Northern Agency NDOT Road Maintenance Miles





Challenges

- Lacked of maintaining School Bus routes resulted in children missing schools, tardiness, and failing grades
- There is no road maintenance service provided on the Navajo Nation by San Juan County, New Mexico
- In San Juan County, NM there have not been any funding allotted from New Mexico TIF or Capital Outlay for road improvements, only few road projects were funded in McKinley County.
- The school buses maintenance costs are exceeding high and life span of the buses are shortened due to driving on dirt roads.
- In addition, many of the dirt roads also serve elderly population, handicapped under doctor's care, and general public attend to employment and other businesses and shopping.

San Juan County (New Mexico)

- Navajo DOT renewed Memorandum of Understanding on February 5, 2013 with San Juan County, signed by the NN President Shelly. This MOU allows for the chapters and Navajo DOT to establish working relationship for planning and coordination in addressing transportation issues.
- Navajo DOT is developing a Intergovernmental Agreement (IGA) with San Juan County of New Mexico which would allow working on projects on road improvements and bridges for Eastern and Northern Agencies.
- San Juan County no longer have additional revenue of School Bus funds, which was not included in the new national transportation bill called, MAP-21. County may look to the Navajo DOT in replacement of loss funding in order to continue maintaining and improvements of roads on Navajo Checkered Board area in the Eastern Agency, approx. \$255,000.



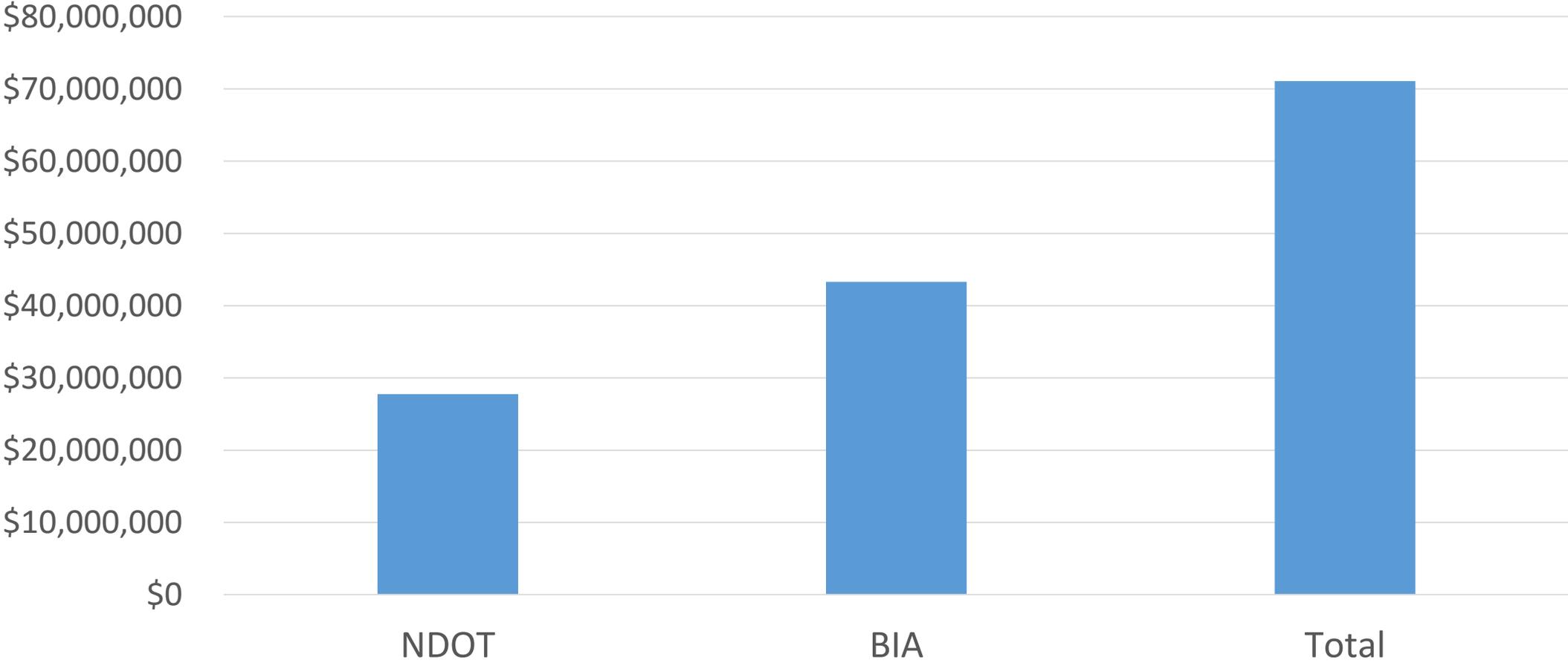
Cost for Road Improvements

- Scope of Work: Provide 3 miles of graveling road improvements and install culverts at five wash crossings.
- Construction Cost = {3 miles x \$150,000/mile} + {5 culverts x \$10,000/culvert} = \$500,000
- Preliminary Engineering Cost
 - ❖ Survey & Drainage Study = \$30,000
 - ❖ Archaeology & Environmental = \$45,000
- Total Project Cost = \$575,000
- Find funds to design and construct improvements

Costs of Preliminary Assessments

Preliminary Assessments	Estimated Costs (If Outsourced)
Archaeological Assessment	\$5,000 = 1 mile
Biological Assessment	\$5,000 = 1mile
Environmental Assessment (If required by BIA or if using Federal Highway Administration (FHWA) Funds	\$5,000 – 1 mile
Drainage Analysis (Hydrology and Hydraulic Assessment)	\$30,000
Centerline Survey or Centerline Staking	\$30,000

School Bus Cost Estimates for Road Improvements (In million)



School Bus Route Improvement High Priority- All these projects have matching fund and construction readiness.

Priority	Chapter	Route Number	Mile	ADT	School Bus Routes	Cost of Construction	Preliminary Cost (15% of Constr)	Matching Fund (FET)	Unmet Needs	Cost of Road Maintenance	Cost per mile
High	Shiprock	N546	2.1		Yes	\$878,599	\$131,790	\$232,194	\$778,195	\$6,300	300,000
High	Beclabito	N5113	12	125	YES	\$3,600,000	\$0	\$94,571	\$3,505,429	\$36,000	300,000
High	Two Grey Hills	N192	3.7	275	YES	\$1,110,000	\$0	\$50,844	\$1,059,156	\$11,100	300,000
High	TseAloaztiti-RedValley	N5012	9.1	234	YES	\$2,730,000	\$0	\$593,166	\$2,136,834	\$27,300	300,000
	Total		26.9			\$8,318,599	\$131,790	\$970,775	\$7,479,614	\$80,700	

High priority needs to complete Archeological Clearances, Environmental Assessments, Drainage studies, centerline surveys.

High	GadiiAhi-Tokoi	N57	2	605	YES	\$600,000	\$90,000		\$690,000	\$6,000	300,000
High	San Juan	N366	5	256	YES	\$1,500,000	\$225,000		\$1,725,000	\$15,000	300,000
High	Nenahnezad	N365	2.6	216	YES	\$780,000	\$117,000		\$897,000	\$7,800	300,000
High	Burnham	N5080	14	167	YES	\$4,200,000	\$630,000		\$4,830,000	\$42,000	300,000
High	TseDaaKaan	N563	0.6		YES	\$180,000	\$27,000		\$207,000	\$1,800	300,000
High	Newcomb	N5007	3		YES	\$900,000	\$135,000		\$1,035,000	\$9,000	300,000
High	Sheep Springs	N5002	5		YES	\$1,500,000	\$225,000		\$1,725,000	\$15,000	300,000
High	Upperfruitland	363	1.6		YES	\$480,000	\$72,000		\$552,000	\$4,800	300,000
	Total		87.6			10,140,000	\$1,325,580	\$1,941,550	\$11,465,580	\$179,100	\$14,911,809
	Grand Total		114.5			18,458,599	1,457,370	2,912,325	18,945,194	259,800	

Note: colored above has completed all the Preliminary clearances, and construction readiness.

GadiiAhi-Tokoi Chapter:

Scope of Work: To work on Preliminary studies which would completing archaeological clearances, environmental assessments, biological evaluations, drainage studies, culvert installation, graveling stabilization and chip sealing. Cost estimates is provided below. Total of \$690,000 to plan, design, and construct of unimproved road.

Chapter	Route Number	Mile	ADT	Centerline Survey	Arch Completed	Environmental Completed	Regional Plan	Cost of Construction	Preliminary Cost (15% of Constr)	Matching Fund (FET)	Unmet Needs	Cost of Road Maintenance	Type of Improvement	Scope of Work
GadiiAhi-Tokoi	N57	2	605	None	None	None	YES	\$600,000	\$90,000	\$0	\$690,000	\$6,000	Graveling and stablization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys

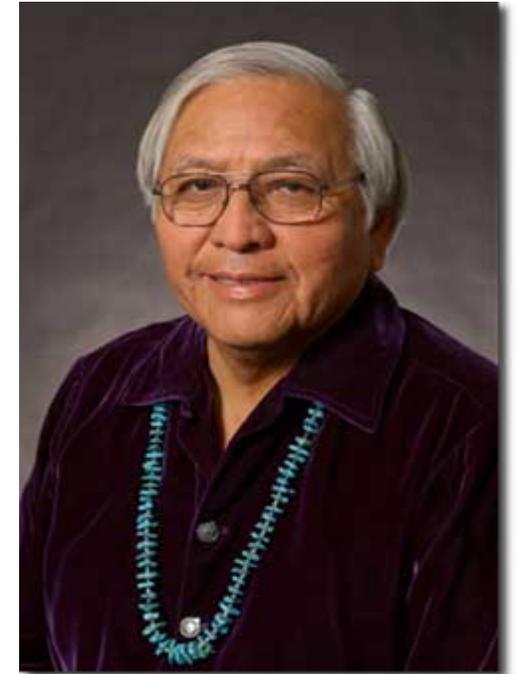
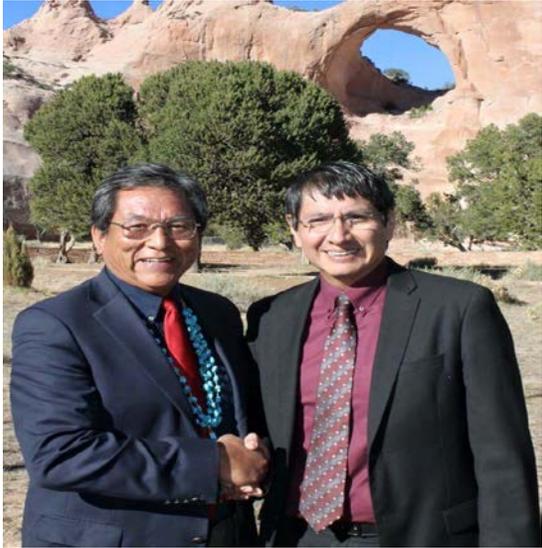
Shiprock School Bus Road Improvement Cost Estimates

Chapter	Route Number	Mile	ADT	Centerline Survey	Arch Completed	Environmental Completed	Drainage study	Culvert installations	Regional Plan	Cost of Construction	Preliminary Cost (15% of Constr)	Matching Fund (FET)	Unmet Needs	Type of Improvement	Scope of Work
Shiprock	N546	2.1		None	completed	completed	\$40,000	\$40,000	FET	\$878,599	\$131,790	\$232,194	\$858,195	Graveling & stabilization	Construction Ready
Shiprock	N569	1.6	1079	None	None	None	\$0	\$20,000	NO	\$480,000	\$72,000	\$0	\$572,000	Graveling & stabilization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
Shiprock	TR5033	1	1000	None	None	None	\$60,000	\$40,000	YES	\$300,000	\$45,000	\$0	\$445,000	Graveling & stabilization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
Shiprock	N5031	1		None	None	None	0	100000	YES	\$300,000	\$45,000	\$0	\$445,000	Graveling & stabilization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
Shiprock	N5071	2.1		None	None	None	0	100000	YES	\$630,000	\$94,500	\$0	\$824,500	Graveling & stabilization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
		7.8									\$256,500		\$3,144,695		

Red Valley School Bus Road Improvement Cost Estimates

Chapter	Route Number	Mile	ADT	Drainage study	Culvert installations (\$10,00/pipe)	Regional Plan	Cost of Construction	Preliminary Cost (15% of Constr)	Matching Fund (FET)	Unmet Needs	Cost of Road Maintenance	Cost per mile	Type of Improvement	Scope of Work
RedValley	N5012	4.7	234	30,000	40,000	YES	\$1,410,000	\$211,500		\$1,691,500	\$14,100	300,000	Graveling & stablization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
RedValley	N5021	4	52	30,000	40,000	YES	\$1,200,000	\$180,000		\$1,450,000	\$12,000	300,000	Graveling & stablization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
RedValley	N132	3.5	74	30000	30000	YES	\$1,050,000	\$157,500		\$1,267,500	\$10,500	300,000	Graveling & stablization	Planning- to complete Arch surveys, Environmental Assessments, and Centerline surveys
		12.2						\$549,000		\$4,409,000				

Navajo Nation Leaders of the Past and Today



Shiprock School Bus route, N5071



Red Valley School Bus Routes, N5012



Red Valley School Bus Routes, N132



Red Valley School Bus Routes, N5021





Direct Funding from FHWA

- ❑ Navajo Nation receives Direct Funding from FHWA
- ❑ Authorizes the Nation to perform planning, design, construction and maintenance of highways, roads, and bridges
- ❑ BIA will continue to perform “inherent federal functions” such as right-of-way approvals and road inventory
- ❑ Navajo Nation now manages its Road Construction Fund, including Programming the NNTTIP
- ❑ Transition to Phase Out 93-638 Programs

Navajo Division of Transportation Funds



Federal Highway Administration Funds

- \$54,000,000 Total
- - \$38,000,000 (BIA)
- -\$11,000,000 (road maintenance)
- \$5,000,000 (ROW Clearances/Planning)



Navajo Nation Road Funds (FET)

- \$6,000,000
- \$3,400,000 (Infrastructure)



Navajo Nation General Funds

- \$70,000 +/-

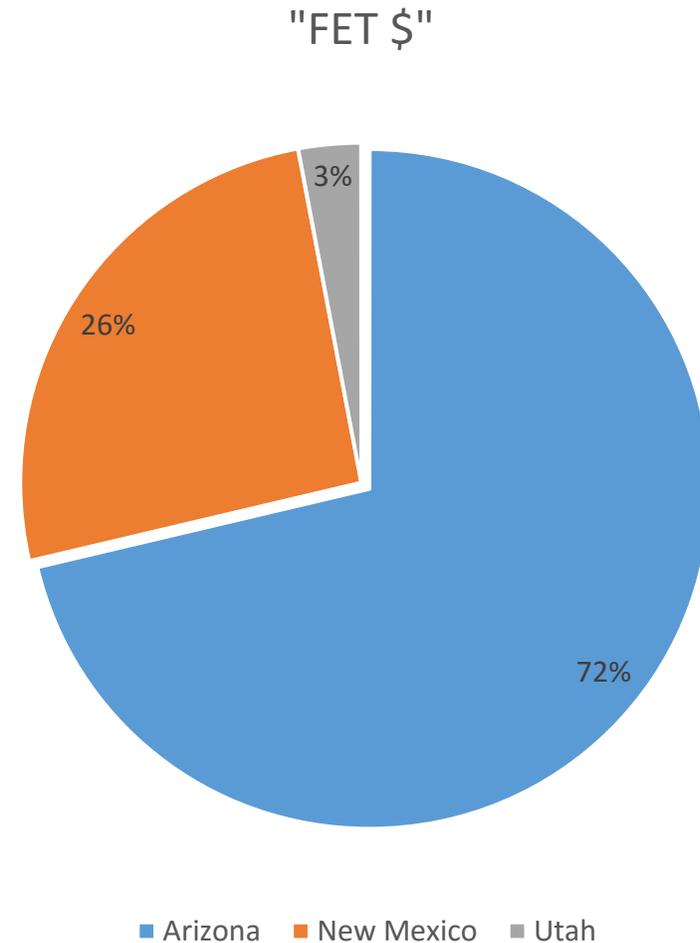


Navajo Nation Road Construction Funds from FHWA

- Navajo Nation receives about **\$54 Million**
- Approximately 20% goes towards Road Maintenance and Safety Projects – **\$11 Million**
- Approximately 9% goes towards Preliminary Engineering & Construction Engineering - **\$5 Million**
- Which leaves **\$38 Million for Construction**
 - ❖ It costs **\$2 Million to Pave One (1) Mile**
 - ❖ We can only **build 19 miles** of Roads Annually
 - ❖ If bridges are included, road miles decrease

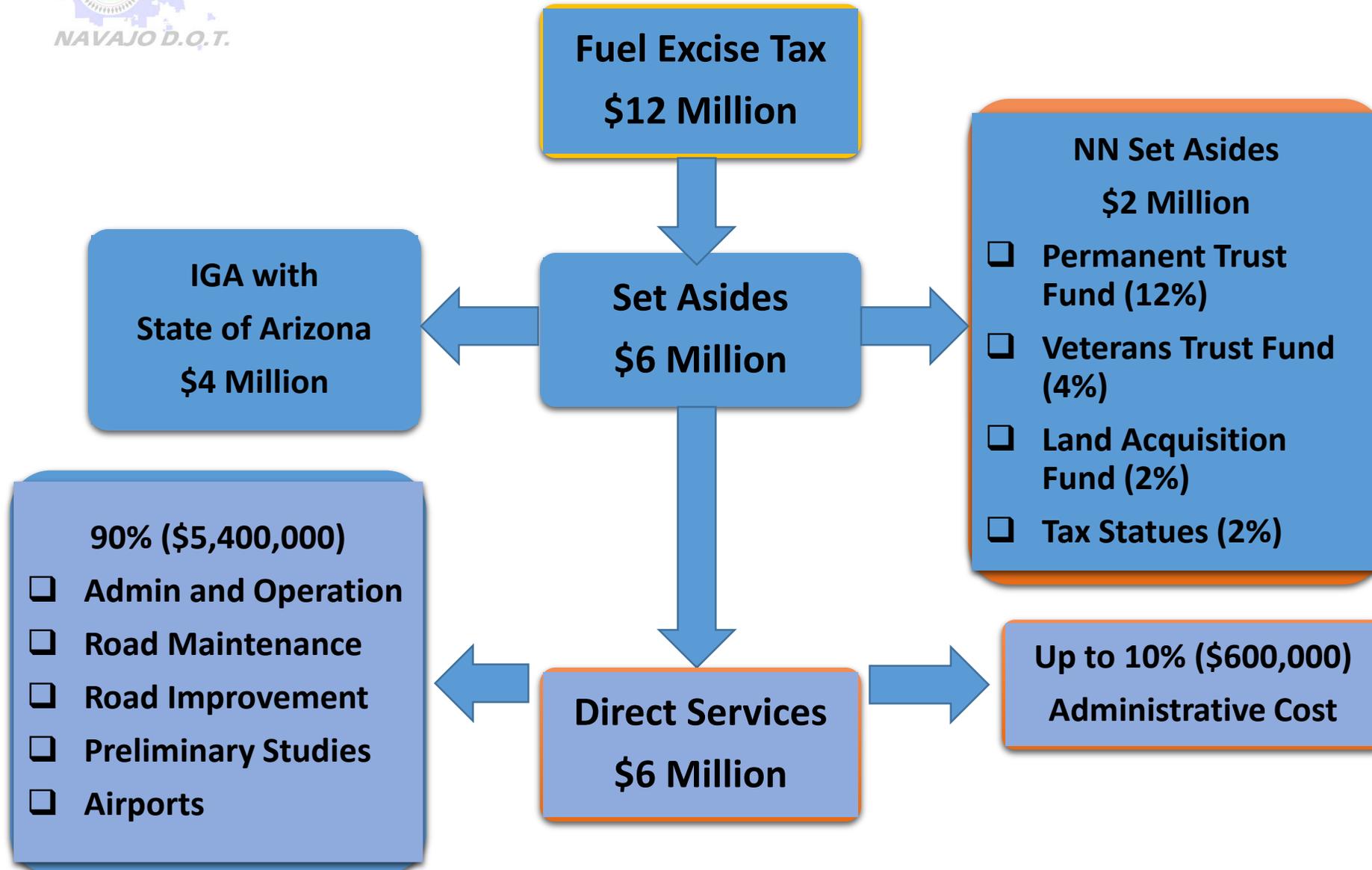
FET Revenue by states

- Funds in the State where they are Generated.
 - Arizona = Generates approximately 72% of “FET” \$ in AZ.
 - New Mexico = Generates approximately 26% of “FET” \$ in NM.
 - Utah = Generates approximately 3% of “FET” \$ in UT.





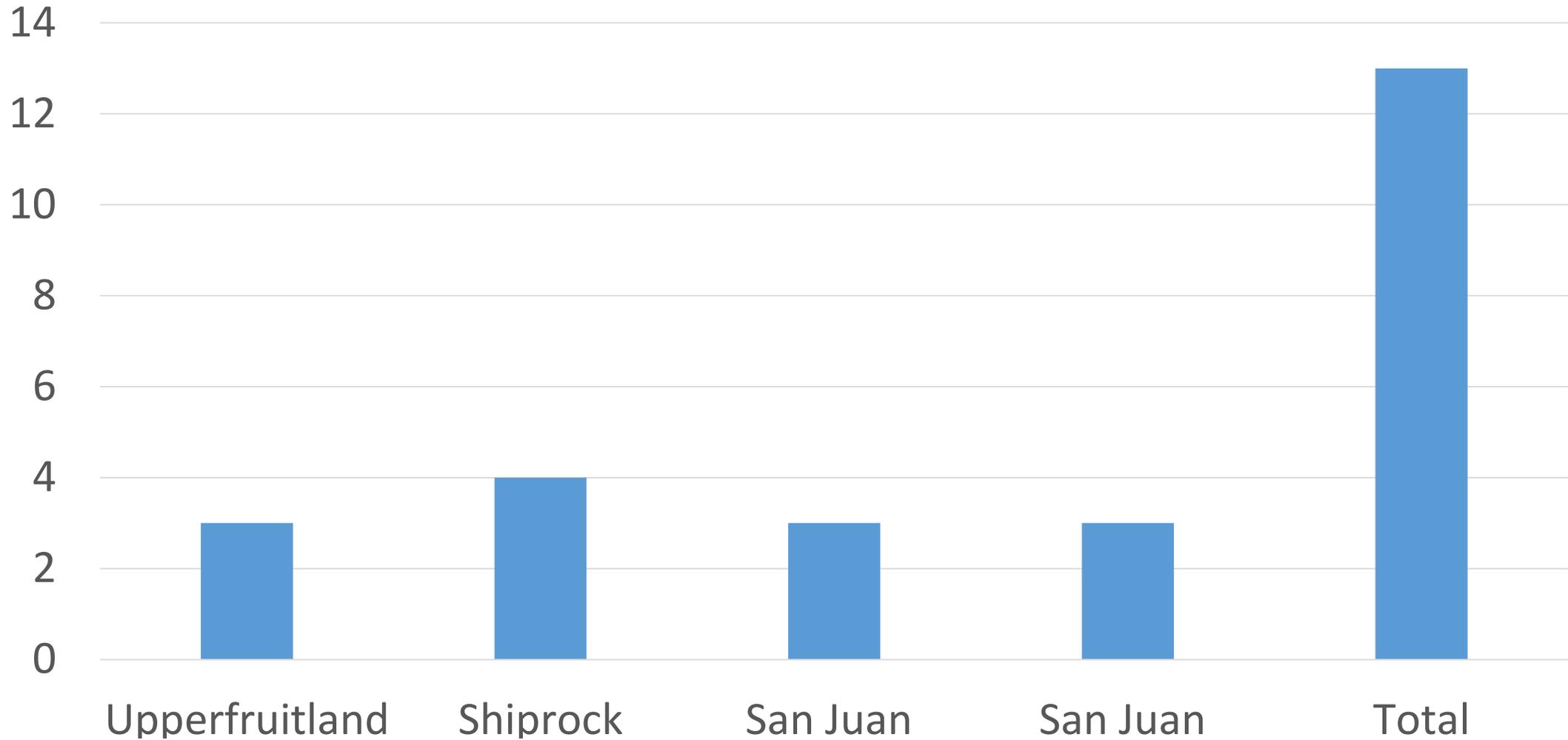
Annual Road Fund Appropriations (FET Funds)



Accomplishments: School Bus road improvement with FET Funding

Year	Chapter	Miles	Cost
2003	Upperfruitland	3	400,000
2006	Shiprock	4	1,700,000
2007	San Juan	3	500,000
2008	San Juan	3	400,000
Total		13	3.0 million

Chapters of Northern Agency, New Mexico Cost of Construction (million)



Upperfruitland School Bus route, N367

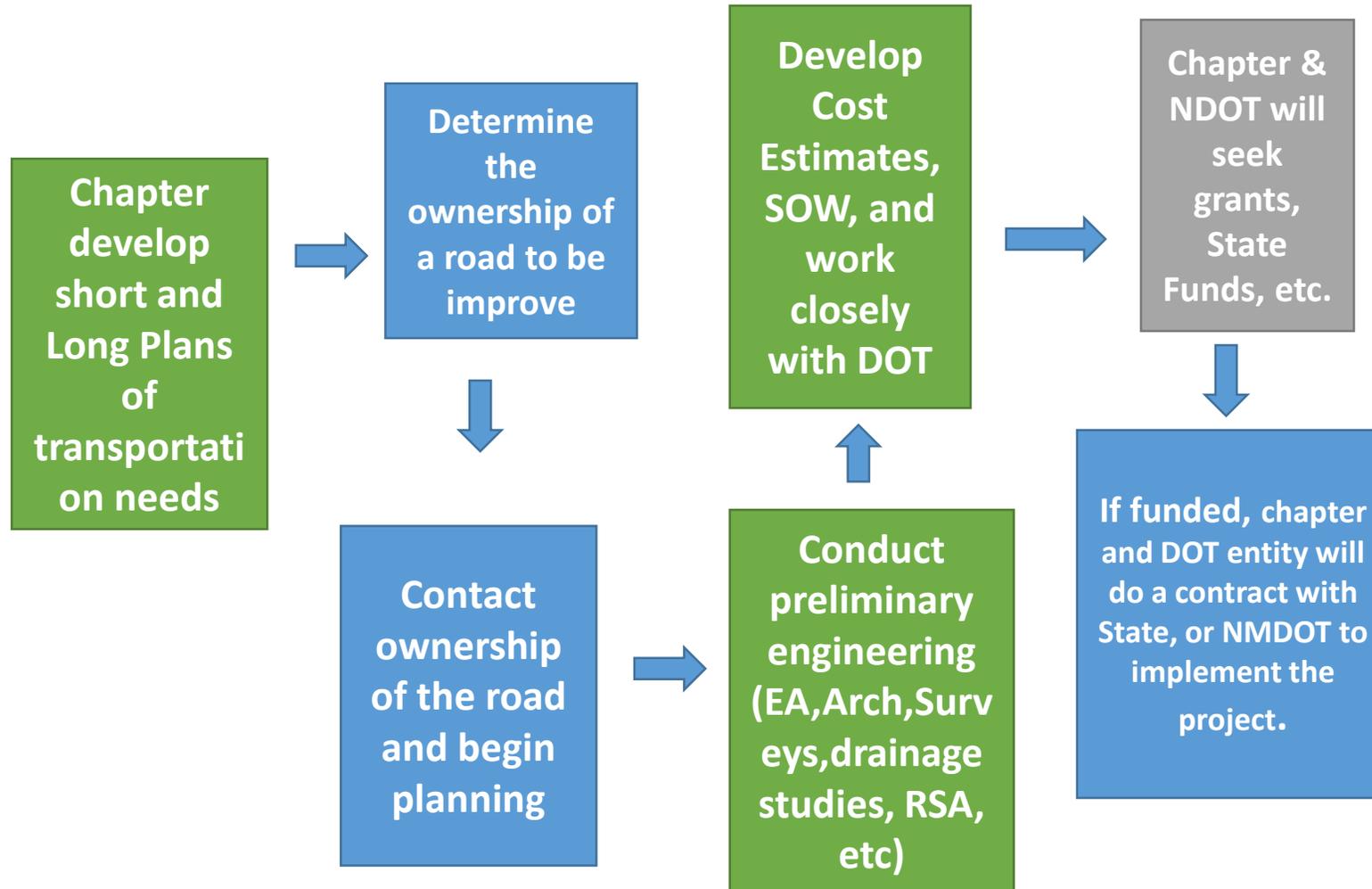


San Juan Chapter, San Juan County, NM



Planning Process

(Road Improvement Plan for Heavy Maintenance)



Process to Improve Routes – Within Navajo DOT

Planning Department

- Inventory
- Prioritize Routes
- Select and Issue Plan (Routes)

Project Management Department

- Right of Way
- Archaeological
- Biological
- Environmental
- Drainage (401/404)
- Centerline Survey

Roads Department

- Road Designs
- Permits (401/404, Water,etc.)
- Drainage Analysis
- Bidding or Procurement Process
- Road Maintenance
- Road Improvement

Accomplishments: School Bus road improvement with FET Funding

Year	Chapter	Miles	Cost
2003	Upperfruitland	3	400,000
2006	Shiprock	4	1,700,000
2007	San Juan	3	500,000
2008	San Juan	3	400,000
Total		13	3.0 million

Chapters of Northern Agency, New Mexico Cost of Construction (million)

