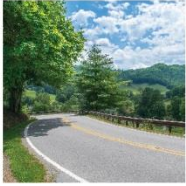




NORTH CAROLINA

Department of Transportation



Powell Bill Overview

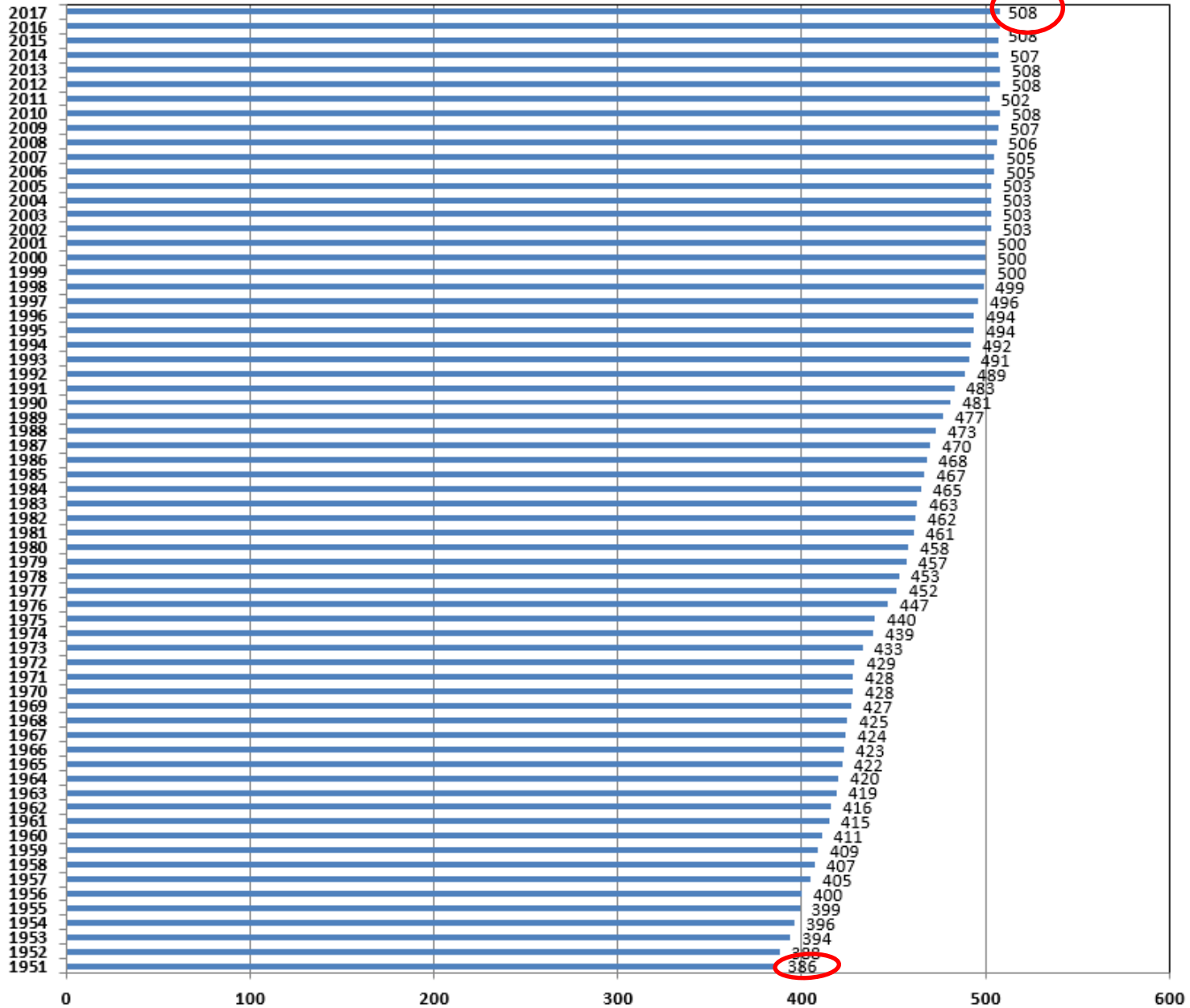
Majed Al-Ghandour

JLTOC December 7, 2017

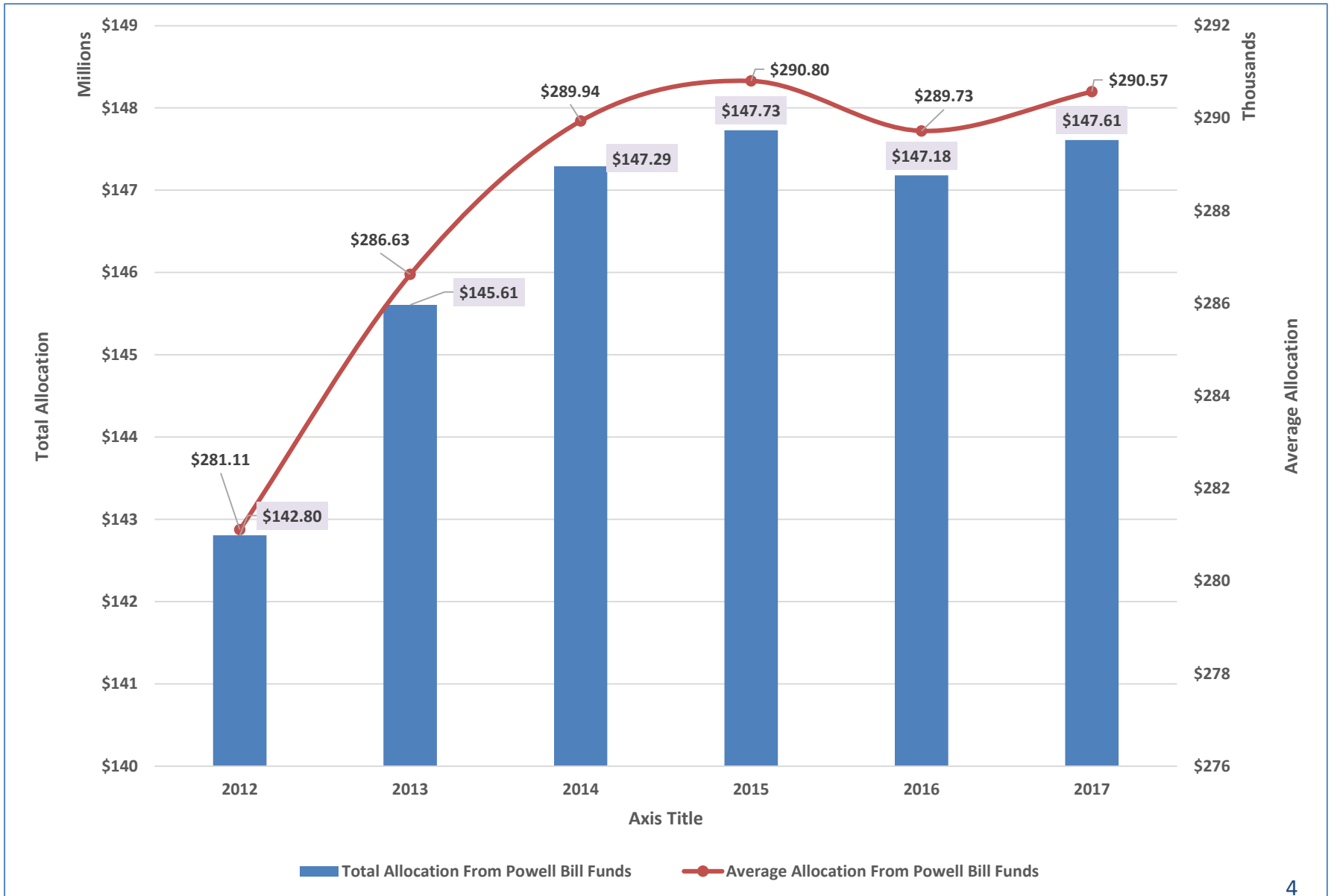
History of the Powell Bill Program

- NC G.S. 136-41
- Law initially passed in 1951
- The goal was to provide financial assistance to municipalities for municipally-maintained streets
- State Senator Junius K. Powell, an attorney & former Mayor of Whiteville, led the signatures on the bill as it was introduced, which resulted in the naming of the “Powell Bill” Program
- First Powell Bill funds were distributed in the Fall of 1951 @ \$4.5 million among 386 participating municipalities

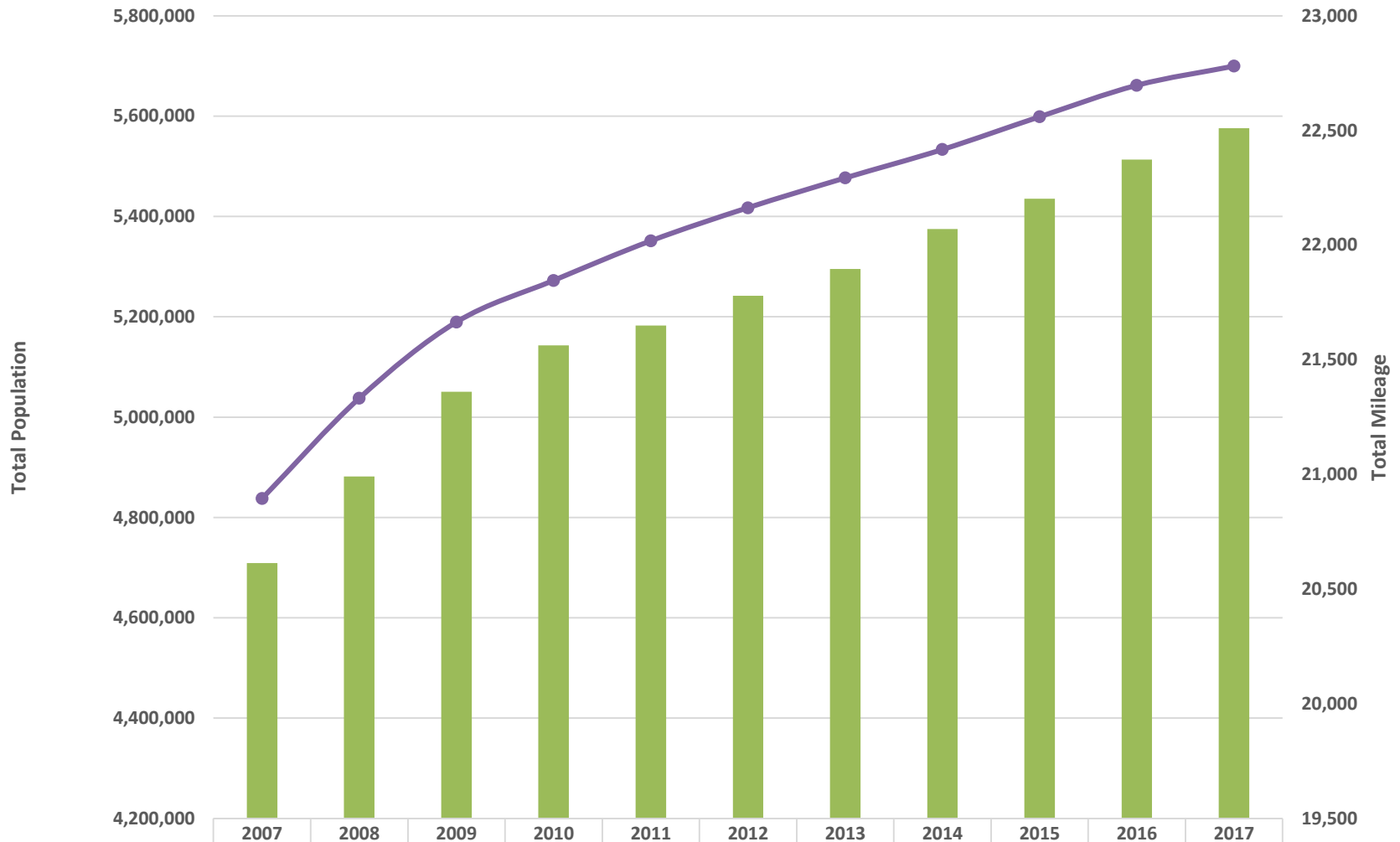
Number of Municipalities



Powell Bill Total /Average Allocations: 2012-2017



Total Population and Mileage Trends: 2007-2017



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Population	4,709,218	4,881,672	5,050,664	5,143,073	5,182,356	5,241,767	5,295,558	5,374,873	5,435,422	5,513,373	5,576,024
Total Mileages	20,894.93	21,332.33	21,664.57	21,846.02	22,018.71	22,163.15	22,293.03	22,416.85	22,559.64	22,696.75	22,780.45

Axis Title

■ Total Population
 —●— Total Mileages

Allocation Formula

NC G.S. 136-41.1(a)



75%

25%



2017 Allocation
\$147,621,245.43

5,576,024 population = \$19.86 per capita

22,780.45 miles = \$1,620.04 per mile

* Mileage of the public streets which are not part of the state or federal highway system.

Status of 2017 Distribution

- Distribution of \$147.6 million to 508 municipalities for 2017 has been completed.
- A total of \$73,800,577.55 was sent September 28, 2017.
- Second half will be distributed before January 1, 2018.

Largest and Smallest Recipients

	Municipality	County	Population	Miles	Allocation
Largest	Charlotte	Mecklenburg	830,258	2480	\$20,503,234
Smallest	Falkland	Pitt	96	0.05	\$1,987

Street Aid to Municipalities - Powell Bill Funds

- Funds allocated from the Highway Fund to provide financial assistance for streets maintained by municipalities
- **S.L. 2013-183:** Eliminated One and three-fourths cents (1 3/4c) tax on each gallon of motor fuel taxed and eliminated revenue allocated and appropriated from the Highway Trust Fund. Established ten and four-tenths percent (10.4%) annual appropriation of the State Highway Fund using the statutory formula:
 - FY 2013-2014 - \$147.5M
 - FY 2014-2015 - \$147.5M
- S.L. 2013-183 also directed funds be used “for planning, construction and maintenance of bikeways, greenways, or sidewalks.”
- **S.L. 2015-241:** Eliminated statutory formula and established fixed appropriation from the State Highway Fund:
 - FY 2015-2016 - \$147.5M
 - FY 2016-2017 - \$147.5M
- S.L. 2015-241 also directed funds be used “primarily for the resurfacing”
- **S.L. 2017-257:** Continue establishing fixed appropriation from the State Highway Fund:
 - FY 2017-2018 - \$147.5M
 - FY 2018-2019 - \$147.5M
- Allocation – 75% Population + 25% Miles & Looking for Population Seasonal Shift
Impact on the formula

Eligible Activities

- ❑ *S.L. 2015-241, Section 29.17D.(b) requires Powell Bill funds to be used **primarily for contract resurfacing.**
- ❑ Maintaining, repairing, constructing, reconstructing or widening of any streets or bridges
- ❑ Planning, construction, and maintenance on streets, sidewalks, bikeways, and greenways such as:
 - Curb and gutter
 - Storm drainage
 - Patching
 - Resurfacing*
 - Widening
 - Snow removal
 - Sand and debris removal resulting from natural causes
 - Street sweeping
 - Purchase or rental of equipment
- ❑ Traffic Control such as:
 - Purchase and maintenance of traffic control devices
 - Traffic signs for proper traffic control
 - Speed bumps
 - Traffic paint for on-street parking or crosswalks
 - Traffic cones
- ❑ Municipal Street Bond Debt Service such as:
 - Current payment of principal or interest due on bonds outstanding issued exclusively for streets and sidewalks.

Powell Bill Expenditures for FY 2017

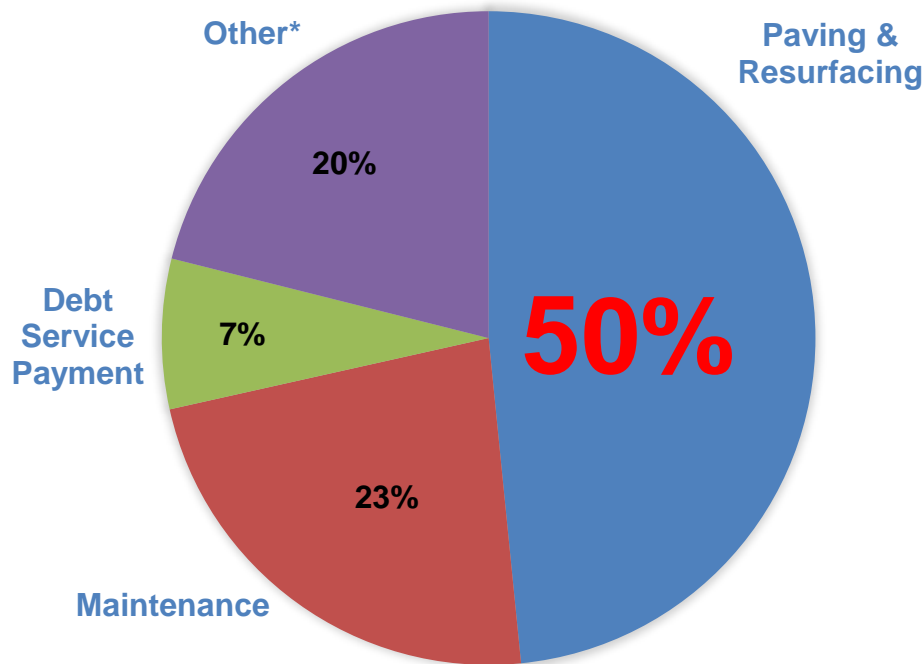
Paving & Resurfacing (49.77% of expenses)	\$ 79,582,440.01
Maintenance (22.63% of expenses)	36,179,481.25
Maintenance as part of Paving Project (3.00% of expenses)	4,789,689.67
Debt Service Payment (6.87% of expenses)	10,991,285.37
Traffic Control	3,768,260.61
Sidewalks	4,580,324.74
New Equipment	4,967,640.34
Drainage & Storm Sewer	4,118,163.52
Engineering	2,410,691.62
Snow & Ice Removal	2,405,837.97
New Construction	1,285,803.31
Curb & Gutter	1,777,611.35
Right of Way	1,592,991.90
Bridge Construction & Repair	1,196,455.83
TIP (Transportation Improvement Project)	961,193.71
Bikeways	40,000.00
Greenways	64,245.30
Total Powell Bill Expenditures (508 Municipalities)	\$159,890,582.79

HB 97 changes to G.S. 136-41.1

NC G.S. 136-41.3 (a) Uses of funds. - The funds allocated to cities and towns under the provisions of G.S. 136-41.2 shall be expended by said cities and towns ~~only~~ primarily for the resurfacing of streets within the corporate limits of the municipality but may also be used for the ~~purpose~~ purposes of maintaining, repairing, constructing, reconstructing or widening of any street or public thoroughfare including bridges, drainage, curb and gutter, and other necessary appurtenances within the corporate limits of the municipality or for meeting the municipality's proportionate share of assessments levied for such purposes, or for the planning, construction and maintenance of bikeways, greenways, or sidewalks.

Street Aid to Municipalities - Powell Bill Funds Expenditures

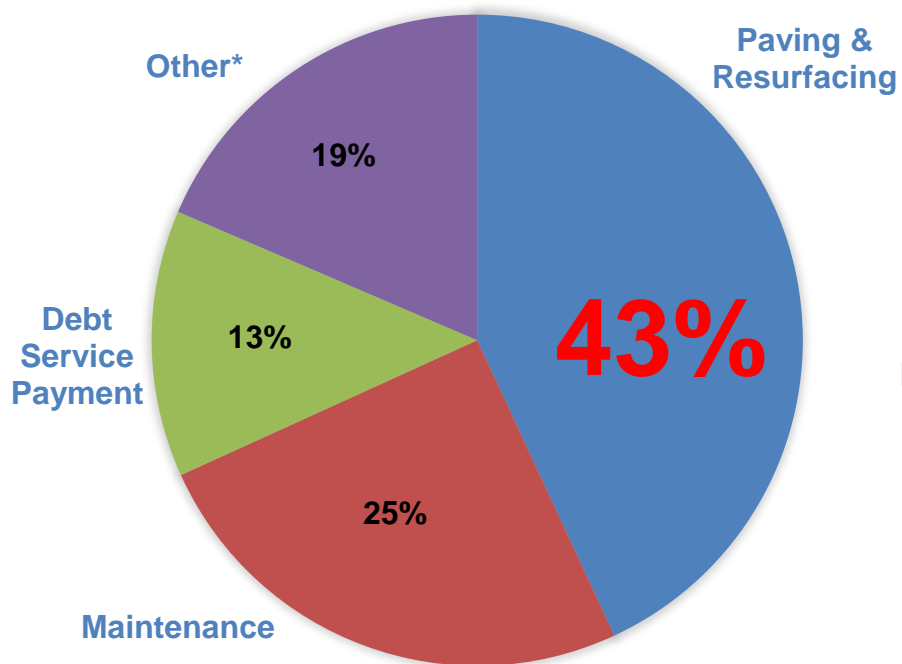
2016 POWELL BILL EXPENDITURES



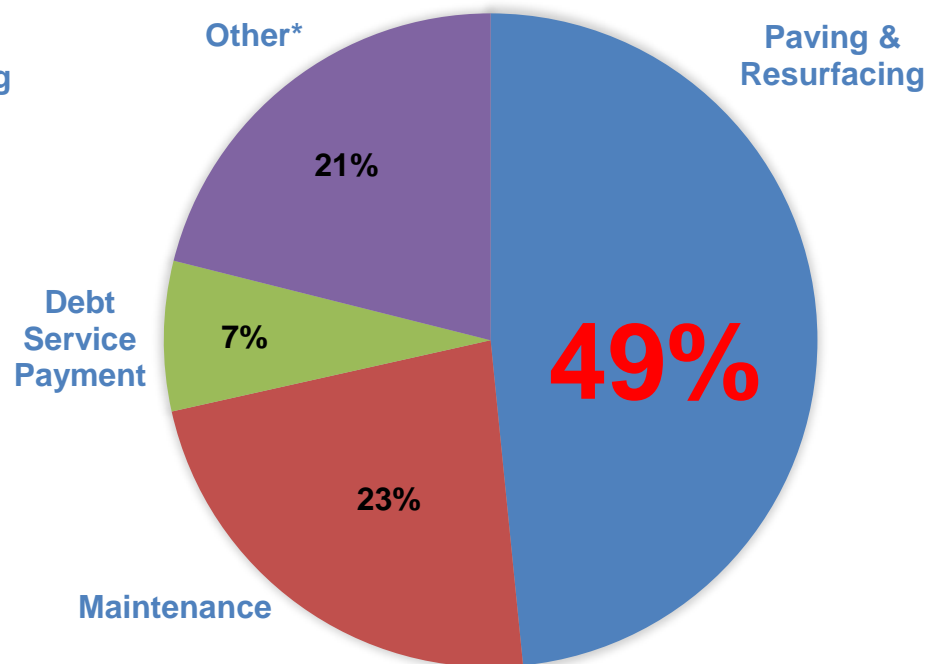
- *Other:**
- (Bridge Construction and Repair
 - Curb & Gutter
 - Drainage & Storm Sewer
 - Engineering
 - Greenways
 - Maintenance as part of Paving Project
 - New Construction
 - New Equipment
 - Sidewalks
 - Snow & Ice Removal
 - TIP (Transportation Improvement Project)
 - Traffic Control

Street Aid to Municipalities - Powell Bill Funds Expenditures

2014 POWELL BILL EXPENDITURES



2015 POWELL BILL EXPENDITURES



***Other:**

- (Bridge Construction and Repair
- Curb & Gutter
- Drainage & Storm Sewer
- Engineering
- Greenways
- Maintenance as part of Paving Project
- New Construction
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- Traffic Control

New Law S.L. 2017- 57

STATE AID TO MUNICIPALITIES/NO FUNDS IF MUNICIPALITY FAILS TO FILE STATEMENT AND STUDY HOW TO ACCOUNT FOR SEASONAL POPULATION SHIFTS

SECTION 34.17.(a) G.S. 136-41.3 reads as rewritten:

"§ 136-41.3. Use of funds; records and annual statement; excess accumulation of funds; contracts for maintenance, etc., of streets.

(a) Uses of Funds. – TheExcept as otherwise provided in this subsection, the funds allocated to cities and towns under the provisions of G.S. 136-41.2 shall be expended by said cities and towns primarily for the resurfacing of streets within the corporate limits of the municipality but may also be used for the purposes of maintaining, repairing, constructing, reconstructing or widening of any street or public thoroughfare including bridges, drainage, curb and gutter, and other necessary appurtenances within the corporate limits of the municipality or for meeting the municipality's proportionate share of assessments levied for such purposes, or for the planning, construction and maintenance of bikeways, greenways, or sidewalks. The funds allocated to cities and towns under the provisions of G.S. 136-41.2 shall not be expended for the construction of a sidewalk into which is built a mailbox, utility pole,

...

(b1) **Failure to File.** – A municipality that fails to file the statement required under subsection (b) of this section by October 1 is ineligible to receive funds allocated on October 1 under G.S. 136-41.1 or G.S. 136-41.2 for the fiscal year in which the municipality failed to file the statement. A municipality that fails to file the statement required under subsection (b) of this section by January 1 is ineligible to receive funds allocated under G.S. 136-41.1 or G.S. 136-41.2 for the fiscal year in which the municipality failed to file the statement.

...."

SECTION 34.17.(b) Study. – The Department of Transportation shall study how to adjust the formula in G.S. 136-41.1(a) to account for **seasonal shifts in municipal populations.** The Department of Transportation shall report its findings, including any legislative recommendations, to the Joint Legislative Transportation Oversight Committee by December 1, 2017.

SECTION 34.17.(c) Effective Date. – G.S. 136-41.3(b1), as enacted by subsection (a) of this section, is effective when it becomes law and applies to allocations on or after that date. The remainder of this section is effective when it becomes law.

Option #1 : **WHAT IF** Allocation Formula

2016



25%

75%



2016 Allocation

\$147,301,159.40

\$20.04 per capita → **\$6.68** per capita

\$1,622.49 per mile → **\$4,867.48** per mile



419

89

Average Allocations

\$27,377.22

(\$128,888.25)

Option # 2: **WHAT IF** Allocation Formula



2016

50%

50%



2016 Allocation

\$147,301,159.40

\$20.04 per capita → **\$13.36** per capita

\$1,622.49 per mile → **\$3,244.98** per mile



Average Allocations

419

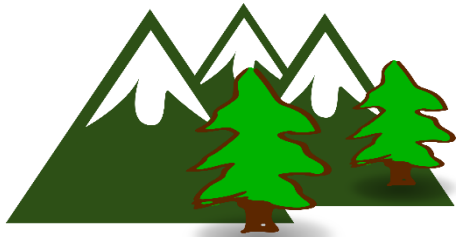
\$13,695.62

89

(\$64,387.21)

New Law: S.L. 2017- 57

- Population Seasonal Shift Changes



North Topsail Beach Highway 210 Bridge Traffic



Surf City Topsail Beach Highway 50 Traffic



Preliminary Study and Findings on Seasonal Population Shifts in Powell Bill Allocation Funds Distribution

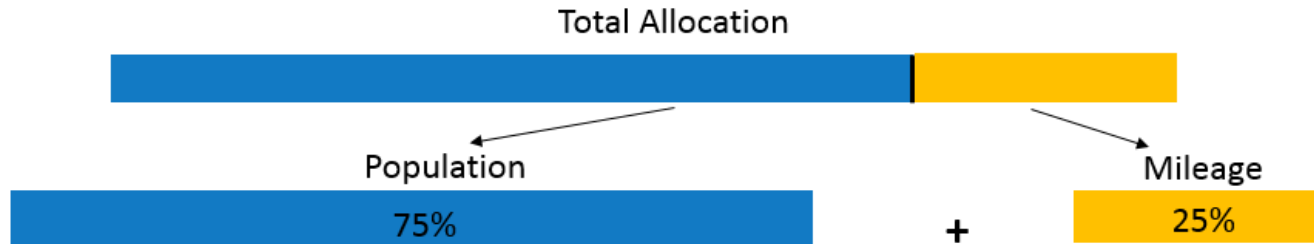
Findings

1. Based on NCDOT Powell Bill application data, total NC permanent population increased **7.20%** from 2010 (5,143,073) to 2016 (5,513,373). The number of participating municipalities ranged from 502 to 508.
2. Powell Bill funding increased **14.27%** from 2010 to 2016 (in \$ amount).
3. 2010 Census data is the most accessible and reliable source for population data. It is the only direct source for seasonal population.
4. Based on the Number of Vacant Housing Units and the Average Number of Persons per Household from Census data, the 2010 NC seasonal population was **3.10%** which is a small portion of the total population.

5. A small portion of municipalities have large ratios of seasonal to permanent population (like the 80/20 rule).

- About **6%** of municipalities had **100%** or more seasonal population vs. permanent population
- Few (**12%**) of the municipalities had **10%** or more seasonal population
- Over **50%** of municipalities have practically none (less than **1%**) of seasonal population

Option to Adjust Powell Bill Funds Formula



Population Formula

Current Formula: Allocation based on Population = Permanent Population * $PCAR_{current}$
 $PCAR_{current}$ is the Per Capita Allocation Rate using the current formula

Suggested Formula: Allocation based on Population = (Permanent Population + Seasonal Population) * $PCAR_{suggested}$
 Seasonal Population = Number of Vacant Housing Units * Average Number of Persons per Household
 $PCAR_{suggested}$ is the Per Capita Allocation Rate using the suggested formula

Mileage Formula

Current Formula: Allocation based on Mileage = Mileage * $PMR_{current}$
 $PMR_{current}$ is the Per Mile Rate using the current formula

Suggested Formula: Allocation based on Mileage = (Mileage + Heavy Military Usage) * $PMR_{suggested}$
 Heavy Military Usage is a factor that accounts for the impact of military equipment on roads
 $PMR_{suggested}$ is the Per Mileage Rate using the suggested formula

- Funding Allocation % Change = (funding allocation for a municipality using the suggested formula – NCDOT funding allocation)/NCDOT funding allocation

Funding Allocation % Change	-1.2%- 0%	0-5%	5-10%	10-30%	30-50%	50-100%	100-105%	Total
Number of Municipalities	402	63	7	18	7	7	1	505
% of Total Municipalities	79.6%	12.5%	1.4%	3.5%	1.4%	1.4%	0.2%	100%

- The funding distribution is objective and consistent for all municipalities.
- The greatest reduction in allocation would be very small (1.2%).
- Only very few (1.6%) of municipalities would receive an increase above 50%. Only 8% of municipalities would receive an increase above 5%.
- 80% of municipalities would receive a small decrease of less than 1.2%.

Summary

Option to Adjust Powell Bill Funds Formula

Formula for Total

$$\text{Total Allocation} = \underbrace{\text{Allocation based on Population}}_{75\%} + \underbrace{\text{Allocation based on Mileage}}_{25\%}$$

Suggested Formula

$$\text{Total Allocation} = \underbrace{(\text{Permanent Population} + \text{Seasonal Population}) * \text{PCAR}_{\text{suggested}}}_{75\%} + \underbrace{(\text{Mileage} + \text{Heavy Military Usage}) * \text{PMR}_{\text{suggested}}}_{25\%}$$

Evaluate Military Usage

More investigation is needed to study the Military Bases in North Carolina to evaluate their impacts into the Powell Bill Formula (Heavy Military Usage):

- **Fort Bragg:** Army Base in Fort Bragg, NC near Fayetteville, Spring Lake, and Southern Pines, NC.
 - Camp Mackall:** US Army training facility in Fort Bragg.
 - Pope Field:** Airforce base within Fort Bragg
- **Seymour Johnson Air Force Base:** located in Goldsboro, NC.
- **Base Support Unit Elizabeth City:** Coast Guard base in Elizabeth City, NC.
- **Camp Lejeune (MCB):** a Marine Corps base in Jacksonville, NC.
- **Marine Corps Air Station (MCAS) Cherry Point:** located in Cherry Point, NC.
- **Marine Corps Air Station (MCAS) New River:** Marine Corps base in Jacksonville, NC.

What is next?

- A full research will be conducted under NCDOT Research Need Statement (RNS) # 9210 “How to Account for Seasonal Population Shifts in Distributing the Powell Bill Allocation Funds” for FY2019.
- The work proposed herein seeks to identify the municipalities that experience such shifts, quantify its impact, and assess the negative effect (allocation shortfall) of the shift relative to the allocation formula.
- In addition, this research will suggest strategies to incrementally implement the new formula so as to minimize future allocation impacts on municipalities that may not receive a seasonal or military increase.