

**REPORT OF THE  
HOUSE ROADS AND INTERNAL NAVIGATION COMMITTEE**

**TO THE  
GENERAL ASSEMBLY OF VIRGINIA**



**HOUSE DOCUMENT NO. 15**

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF PURCHASES AND SUPPLY**

**RICHMOND  
1978**



## **COMMITTEE MEMBERS**

LEWIS A. McMURRAN, JR., Chairman  
ORBY L. CANTRELL  
DONALD G. PENDLETON  
GARRY G. DeBRUHL  
L. CLEAVES MANNING  
WILLIAM P. ROBINSON, JR.  
V. EARL DICKINSON  
ROBERT B. BALL, SR.  
MARY A. MARSHALL  
ROBERT E. WASHINGTON  
WILLIAM T. PARKER  
RICHARD L. SASLAW  
EARL E. BELL  
GEORGE N. McMATH  
RAYMOND R. ROBRECHT  
RAYMOND R. GUEST, JR.  
ROBERT E. HARRIS  
CHARLES W. GUNN, JR.  
EVA M. SCOTT

## **STAFF**

WILLIAM C. CRAMME, Staff Attorney  
CONSTANCE D. SPROUSE, Legislative Research Associate



**Report of the**  
**House Roads and Internal Navigation Committee**

**to**

**The General Assembly of Virginia**

**Richmond, Virginia**

**December, 1977**

**I. INTRODUCTION**

Since the conclusion of the nine een hundred seventy-seven General Assembly Session, the House Roads and Internal Navigation Committee has examined several subjects within its purview. Subcommittees carried out studies regarding the implementation of new highway revenue allocation formulas (H. B. 1041, 1977), matters pertinent to railroad crossings, and the transportation needs of Northern Virginia.

The Subcommittee Studying House Bill No. 1041 reviewed the method of highway fund allocations used by the Department of Highways and Transportation under the previous State law and compared those figures with allocations made as of July 1, 1977 under House Bill No. 1041. The Subcommittee also examined special road improvement needs in Southwest Virginia. The Committee chairman, Lewis A. McMurrin, Jr., appointed the following members to serve on this Subcommittee: Lewis A. McMurrin, Jr., Chairman, Orby L. Cantrell, Donald G. Pendleton, Garry G. DeBruhl, L. Cleaves Manning, V. Earl Dickenson, Robert B. Ball, Sr., Mary A. Marshall and Charles W. Gunn.

House Resolution No. 36 of the 1977 Session requested the Committee to study the number of railroad crossings at grade in the Commonwealth, decide which crossings are necessary and how better procedures could be developed to eliminate crossings that are rarely used or not in the public interest. Mr. McMurrin appointed the following members to conduct this study: William P. Robinson, Sr., Chairman, Richard L. Saslaw, George N. McMath, Raymond R. Robrecht, and Eva F. Scott.

House Joint Resolution 245 requested the Committee evaluate the transportation needs of Northern Virginia. The Committee was charged with reviewing the 1976 preliminary recommendations of the Governor's Council on Transportation and determining how best the transportation needs of Northern Virginia could be addressed. Mr. McMurrin appointed the following Committee members to carry out this study: Donald A. McGlothlin, Sr., Chairman; Mary A. Marshall, William T. Parker, Robert E.

## II. RECOMMENDATIONS

The Committee received reports outlining each Subcommittee's analyses and recommendations. Below are the recommendations endorsed by this Committee which are presented to the 1978 General Assembly for its consideration.

1. The Committee found that additional highway revenues have been generated during the past biennium which are providing an increase in the level of funding for highway maintenance and construction. The Committee recognized last session the importance of maintenance programs for the Commonwealth's road system. Under the new allocation system, maintenance programs are funded first and remaining funds are used for construction. Because of the increased revenues, the Department was able to provide adequate maintenance funds as well as increase the amounts localities received for construction under the previous system of allocation.

2. Coal hauling roads, however, were found to be in need of a special type of surfacing to strengthen them. The Committee found that this strengthening process would be extremely costly and a burden on the Department's funds. After lengthy consideration, the Committee agreed to recommend legislation to levy an additional one percent local coal severance tax which could be levied in counties with coal hauling roads and earmarked to strengthen these roads.

3. In order to discourage further damage to the abovementioned coal hauling roads the Committee has recommended that legislation to discourage the overloading of coal hauling trucks which contribute to the damage of these roads be devised.

4. Current statutory procedural requirements for public notice and hearing on the abandonment of railroad crossings were found not to be in need of amendment. However, where local governing bodies have jurisdiction over abandonment proceedings, final decisions on abandonment petitions are not expeditiously made by localities. Legislation to shorten the process so that the notice of abandonment, a public hearing and final decision could be made after a thirty day period or after public hearing in a more expeditious manner than is currently the case. A right of appeal to the circuit court with preferential docket status would be established if the governing body failed to act within a certain time period.

5. Northern Virginia transportation needs, which include highway improvements, effective mass transit operations, and the encouragement of para-transit, have placed an extreme burden on the financial resources of the localities. In keeping with the Commonwealth's policy of assisting localities with capital costs of transportation systems, the Committee has recommended further assistance to Fairfax County, Alexandria, Arlington County, Falls Church and Fairfax City for interest

payments on federally guaranteed WMATA revenue bonds which were issued to finance the capital costs of Metrorail and Metrobus.

### III. RATIONALE FOR RECOMMENDATIONS AND ADDITIONAL FINDINGS OF THE COMMITTEE.

#### HIGHWAY REVENUES

Last session the General Assembly recognized the need to revise the requirements for the allocation of highway construction and maintenance funds to the various highway systems and activities which had evolved into several complex distribution formulas. This revision, House Bill 1041 (Chapter 578 of the 1977 Acts of Assembly), provided more equitable distribution of funds to better meet maintenance and construction requirements and to simplify such distribution.

Total revenues, including federal funds, are expected to be approximately \$651 million for fiscal year 1977-78. The proposed allocation of this revenue made under the new distribution formula has been made by the Highway and Transportation Commission as follows: (1) Maintenance, general expenses and industrial access, \$196.4 million (a 7.8% increase over last year); (2) primary system, arterial network and interstate matching funds, \$151.8 million (a \$32.8 million increase); (3) urban system, \$75.9 million (a \$17.8 million increase); and (4) secondary construction, \$75.9 million of which \$72.5 million was allocated directly to the counties (a \$21.1 million increase). Attached are documents provided by the Department of Highways and Transportation which show allotments made to the secondary system in each construction district and county under the 1976 formula and the increase in funds under the new formula. (Appendix 1).

Under the new allocation system, no locality shall receive less funds than it received the previous year unless revenue declines. In fact, highway revenues increased through February of this year at a rate of 7 3/4% over last year. It should be noted at this point that the annual growth rate of revenues is expected to slow down. The Department of Highways and Transportation has projected a 5.3% revenue increase for the 1977-78 fiscal year.

The Committee reports that it is extremely pleased with this revised allocation formula and the general revenue increases experienced this past year. However, one should be aware of the fact that approximately \$35 million of the total funds available for this year are funds which were not allocated during the past biennium in anticipation of a revenue shortfall owing to the uncertain economic conditions at that time. Such a large unallocated sum is not anticipated for the coming biennium.

Other matters of concern to the Committee include the condition of coal hauling roads in Southwest Virginia and the damage to road surfaces incurred from overloaded coal trucks. The Committee presents herein documentation of the need to improve such road and to enforce weight

limits applicable to coal trucks.

Appendix 2 is a table which details the secondary road mileage in localities which have coal industry operations. These mileage figures show the percentage of secondary road miles used in hauling coal. Also present in this table are the 1977-78 highway fund allocations for maintenance, replacement and construction. Approximately 62% of the 1,500 secondary road miles in the counties of Buchanan, Dickerson, Lee, Russell, Tazewell and Wise are expected to need \$58 million for strengthening to support the higher legal limits allowed for coal hauling trucks. Only \$8.9million is provided for all maintenance and construction for fiscal 1977-78 in these counties.

The table attached as Appendix 3 outlines several revenue proposals based on increases in the local severance tax levied by those counties under § 58-266.1:1. The Committee agrees that it is reasonable to impose a tax increase upon the industry which is serviced by these roads (see Appendix 4). An additional one percent tax would provide enough revenues to complete the necessary work within a reasonable time frame, five to nine years, in the several counties. This revenue should be earmarked for the abovementioned use with a sunset provision for when such strengthening is completed.

Serious damage has been done to roads in this district by overloaded coal trucks. State policemen, using portable scales, have not been able to deter coal haulers from violating State statutes on weight limitations. In conjunction with the above proposal, the Committee suggests some method be devised to enforce existing weight limits for trucks so that once the roads are strengthened, damage to such roads will be reduced.

## RAILROAD CROSSINGS

This study arose from the fact that over the years there has been created a large number of crossings at grade of railroads by highways and other public ways and some appear to be of limited use and perhaps could be combined with other crossings to reduce their number and the danger to the travelling public.

The first area of the study concerns matters relating to the number of railroad crossings at grade. In Virginia there are 2,950 railroad crossings at grade; 1,302 are in towns and cities, and 1,648 are in rural areas or on the State Highway system. Of these 2,950 crossings, 861 have protection in the form of flashing lights or gates or both; of the 2,089 remaining crossings, most are protected by crossbucks. Testimony revealed that most crossings that were not protected by lights, gates or crossbucks are still not in compliance with § 56-405.2, passed by the General Assembly, which sets crossbucks as the minimum standard form of protection at railroad crossings in Virginia and requires that every railroad company shall cause such crossbucks to be placed at railroad crossings at grade. Further testimony revealed that some crossings may not be in compliance due to the provision within § 56-405.2 which exempts from compliance crossings in



cities and towns where it is determined by both the Commissioner and the governing body of the locality acting upon a petition from the appropriate railroad company, that the placement of the new crossbucks will not enhance the safety of the travelling public.

The second area of the study regards the necessity of all the present crossings at grade in the State. In its approach to examining this area of the study, the Committee asked the Department of Highways and Transportation to provide it with a list of those crossings which in its estimation they deem unnecessary, and to provide the Committee with a list of those criteria which it used to make such a determination. The following is a list of those criteria used by the Department in determining whether a crossing is necessary and is a possible subject of abandonment:

1. The accident history of all crossings was provided by the Department of Highways and Transportation. Any near misses of trains with school buses is also considered with the accident history criterion. The State Department of Education Pupil Transportation Services has had no accidents to report over the past seven years.

The statistics on public school bus-train accidents, home to school operation, during the past ten years are as follows.

1976-77	None	1971-72	None
1975-76	None	1970-71	None
1974-75	None	1969-70	One
1973-74	None	1968-69	None
1972-73	None	1967-68	None

2. The number and type of vehicles using the crossing per day.

3. A consideration of an alternate route for vehicular crossing if the crossing in question were closed. The Department usually considers only those alternate routes which entail no more than one or one and a half miles of extra travel.

4. The hardship or penalty that would be inflicted upon those people affected by closing the crossing. A cost-benefit evaluation is made to determine the time delay to the residents in having to travel the extra distance. In abandoning a crossing, the Department must be careful not to cut off reasonable access to the people.

5. A consideration of emergency service access.

6. The number and the speed of trains passing through the crossing and the number of main line tracks at grade at the crossing.

7. The geometrics of the crossing at grade, i.e. the physical

characteristics of the crossing and the highway and their relation with each other. Such characteristics as sight distances, blind curves and road conditions are determining factors.

8. The condition of the access roads and highway (s) immediately adjacent to and leading up to the crossing to be closed.

9. A consideration of the surrounding area and development at and near the crossing; whether the area is residential, business or farm land.

10. The type of warning devices and protection at the grade crossing and a consideration of whether additional protection as a grade separation would be a viable alternative to abandoning the crossing. Testimony revealed that to provide added protection at a crossing would cost between forty-five and sixty thousand dollars and to provide a grade separation would cost between one and two million dollars.

The Department of Highways and Transportation's Division of Traffic Safety conducted an office review of the 1,648 rural grade crossings to determine the number of rural grade crossings which in their opinion may be unnecessary and possible subjects of abandonment. Using the above criteria to make their determinations but qualifying their study by saying that a field study would be necessary to finalize their report, the Department judged that 313 rural grade crossings could be considered unnecessary and be given a closer and more detailed examination.

The Urban Division of the Department of Highways and Transportation sent a letter to 73 municipalities with 3,500 inhabitants or more, and requested them to advise the Department of any highway-railway grade crossings in their jurisdiction which could be eliminated.

This study covered most of the 1,302 grade crossings located in the cities and towns mentioned above. As of September 29 the Urban Division had received replies from 36 municipalities advising that it may be possible to eliminate 26 crossings. Eighteen of these are in the City of Portsmouth and may be eliminated as a result of the Atlantic Coast Line and Seaboard Cost Line merger.

The third study directive of H. R. 36 asked the Committee to study and report upon the question of how better procedures might be developed for the elimination of highway-railroad grade crossings which are little used or which serve no major public interest. The Department of Highways and Transportation's assistant attorney general, prepared a report outlining the various current procedures for the abandonment of railroad crossings.

Testimony led the Committee to conclude that the current statutory procedural requirements for public notice and public hearing in the abandonment process are close to the constitutional minimum standards and therefore, should remain as they are. However, these procedures can be time consuming and thus, the area that may be in need of change is that where the governing body, which has jurisdiction over the abandonment proceeding, is failing to reach a final decision on the petition

expeditiously.

The Committee suggests that the abandonment process be shortened by requiring the governing body or the Commission to file the notice of abandonment, set the time and place of the public hearing if any, and to act upon the petition of abandonment after the 30 day period or after the public hearing in a more expedited manner than may be the present practice. By requiring immediate action at each of these steps, the overall time required for complying with the procedures would be reduced. Because enforcement of and sanctions against dilatory actions may be difficult, petitioners could be granted a right of appeal to the circuit court if the Commission or governing body failed to act within a certain period of time, such as four to six months.

Currently any appeal to the circuit court may be filed only within 30 days after the entry of a final order by the governing body or by the Commission. Therefore, the right of appeal does not mature until after the Commission or governing body has made its final determination. In addition, there is no requirement that the court give the case a preferred place on the docket. Because the court dockets in many parts of the State are crowded, granting such cases a preferred status may be an additional way to expedite the appeal. The Committee's proposed legislation is attached hereunder as Appendix 5.

## **NORTHERN VIRGINIA TRANSPORTATION NEEDS**

Mass transit operation in Northern Virginia presently are being carried out through the Washington Metropolitan Area Transit Authority (WMATA), a multistate agency created by a compact between the federal government, Maryland, the District of Columbia and Virginia. The Virginia localities involved in these mass transit operations include Fairfax County, Fairfax City, Arlington, Alexandria and Falls Church. These localities joined through the Northern Virginia Transportation Commission, have made, and continue to make, enormous financial contributions toward capital and operating costs of Metrorail and Metrobus in order to provide citizens with an efficient and economical alternative to personal transportation.

Tremendous traffic congestion exists in Northern Virginia which now has an estimated population of 852,355. In 1975, the vehicle miles per day travelled in Northern Virginia exceeded 9,577,000. This represents a thirty-five per cent increase since 1972 in travel on interstate and primary roads.

The financial impact on these localities has been great. Local taxes have carried much of this financial burden. Of the 447 million dollars projected as revenues to be received in these localities in fiscal year 1978, 29.7 million dollars has been projected to be their share of metro costs.

## GENERAL FUND REVENUES PROJECTED FOR FISCAL YEAR 1978

	local revenues	metro cost	% of general fund revenues
Arlington	92,482,886	10,418,200	11.26
Alexandria	61,319,127	6,805,000	11.10
Fairfax City	12,961,000	347,300	2.68
Falls Church	6,432,742	315,200	4.90
<i>Fairfax Co.</i>	<i>274,442,000</i>	<i>11,896,000</i>	<i>4.33</i>
TOTAL	447,637,755	29,781,700	6.84

Capital construction costs for the first sixty miles of Metro have been financed partially through federally guaranteed WMATA revenue bonds and local general obligation bonds. Congress this year has provided eighty per cent of the annual cost of the debt service, as they have also done for local bus projects in urban jurisdictions of over 50,000 population, and is expected to continue this level of funding. The Commonwealth has recognized that in order to provide public transit in other areas of the State, financial assistance for capital transportation purchases has been necessary. In keeping with this philosophy, the Committee recommends that financial assistance be given Northern Virginia localities to relieve the burden on the local revenues experienced because of the interest and capital payments due on the capital construction bonds. Since the State currently funds ninety per cent of urban highway construction and urban localities pay the remaining ten per cent, the Committee proposes that this formula be adopted to provide such financial assistance. (See Appendices 6 and 7.) While we believe that this aid should come from the general fund and should not be a charge on the special road fund, we believe that pending improvement in the general fund, that these allocations of 18% of capital costs should continue from the special road fund as provided in the 1976-1978 Appropriation Act.

In so much as the operating deficits of Metrorail and Metrobus are directly influenced by the extent of services and the fare structure can be influenced by the local jurisdictions, such deficits should be the primary responsibility of the aforementioned local jurisdictions. It is the sense of this Committee that the fare structure of Metrorail and Metrobus be increased to reflect increases in the cost of living and to prevent the present operating deficits from becoming larger. The Committee notes that Metrobus service in Virginia is presently receiving only fifty per cent of the operating revenues from the fare box.

In order to relieve additional tax burdens on home owners and other real property owners, the Committee agrees that additional revenue sources in the form of taxes falling only on the people of Northern Virginia should be granted by the General Assembly to the several governing bodies or to the Northern Virginia Transportation Commission. The legislative delegation

from Northern Virginia is invited to make specific recommendations to the General Assembly for such sources. Such grants of additional revenue should be reserved for transportation and should include a "Sunset" provision so that the General Assembly could re-evaluate this grant of authority at a later date.

A strengthened Northern Virginia Transportation Commission or successor agency should receive these revenues and disburse them for operating deficits and, if any remaining revenues be available, they should be disbursed to meet other capital needs. Such other capital needs could include improved engineering traffic controls, access roads to terminals, express busways, fringe parking lots, the local share of debt service on the local general obligation bonds, or pilot projects in privately-owned group utilized vehicles. The Committee recommends that the role of the Commonwealth in any strengthened Commission or new agency be proportionate to State involvements in the public transportation needs of this area.

The Committee requests that the Department of Highways and Transportation devise, as soon as possible, a highway and transportation plan emphasizing the capabilities of mass transit in order that ridership increases would be experienced which would add fare box revenues to cover operating expense and drastically reduce the number of vehicles on the major highways.

Respectfully submitted

Lewis A. McMurrin, Jr.

Orby L. Cantrell

Donald G. Pendleton

Garry G. DeBruhl

L. Cleaves Manning

William P. Robinson, Sr.

V. Earl Dickinson

Robert B. Ball, Sr.

Mary A. Marshall

Robert E. Washington

William T. Parker

Richard L. Saslaw

Earl E. Bell

George N. McMath

Raymond R. Robrecht (1)

Raymond R. Guest, Jr.

Robert E. Harris

Charles W. Gunn, Jr.

Eva M. Scott

(1)

I respectfully disagree with the recommendations of the Committee regarding (1) financial assistance to certain Northern Virginia localities on bond payments; (2) granting additional revenue source in the form of local taxes on the citizens of Northern Virginia. In addition, while I favor the principle of having the coal industry and/or truck users pay to maintain roads in Southwest Virginia which suffer damage due to excessive weight vehicles, I reserve the right to consider more specific legislation on this matter.

Raymond R. Robrecht

APPENDIX I

1977-78 SECONDARY CONSTRUCTION ALLOCATIONS

County	Improvement Funds Budgeted in 1976-77 and Attributable to Sec. 33.1-23.4-"B"	5-Factor Funds Attributable to Sec. 33.1-23.4-"C"	Total
<u>Bristol District</u>			
Bland	\$ 239,159	\$ 84,254	\$ 323,413
Buchanan	592,826	296,685	889,511
Dickenson	362,187	157,317	519,504
Grayson	340,400	181,179	521,579
Lee	475,093	192,582	667,675
Russell	425,855	223,623	649,478
Scott	666,668	229,747	896,415
Smyth	409,760	194,271	604,031
Tazewell	540,213	238,404	778,617
Washington	712,013	294,363	1,006,376
Wise	482,831	235,026	717,857
Wythe	377,300	168,720	546,020
Total - 12	\$ 5,624,305	\$ 2,496,171	\$ 8,120,476

Salem District

Bedford	\$ 719,456	\$ 339,130	\$ 1,058,586
Botetourt	591,972	217,710	809,682
Carroll	773,000	254,664	1,027,664
Craig	180,531	71,586	252,117
Floyd	502,298	152,883	655,181
Franklin	812,362	327,304	1,139,666
Giles	333,387	138,312	471,699
Henry	1,103,394	382,418	1,485,812
Montgomery	485,289	181,390	666,679
Patrick	568,104	196,171	764,275
Pulaski	507,085	190,681	697,766
Roanoke	638,571	333,850	1,022,421
Total - 12	\$ 7,265,449	\$ 2,786,099	\$ 10,051,548



1977-78 SECONDARY CONSTRUCTION ALLOCATIONS

County	Improvement Funds Budgeted in 1976-77 and Attributable to Sec. 33.1-23.4-"B"	5-Factor Funds Attributable to Sec. 33.1-23.4-"C"	Total
<u>Lynchburg District</u>			
Amherst	\$ 465,697	\$ 213,487	\$ 679,184
Appomattox	311,606	134,934	446,540
Buckingham	498,704	168,931	667,635
Campbell	813,035	311,256	1,124,291
Charlotte	388,230	158,373	546,603
Cumberland	281,084	93,335	374,419
Halifax	928,688	320,547	1,249,235
Nelson	386,273	146,337	532,610
Pittsylvania	1,591,650	544,169	2,135,819
Prince Edward	452,729	123,320	576,049
Total - 10	\$ 6,117,696	\$ 2,214,689	\$ 8,332,385

Richmond District

Amelia	\$ 358,791	\$ 124,164	\$ 482,955
Brunswick	593,340	200,395	793,735
Charles City	160,173	68,629	228,802
Chesterfield	1,604,264	686,917	2,291,181
Dinwiddie	606,212	205,463	811,675
Goochland	276,271	118,674	394,945
Hanover	784,633	336,384	1,121,017
Lunenburg	506,469	156,895	663,364
Mecklenburg	743,755	267,967	1,011,722
New Kent	160,420	74,541	234,961
Nottoway	310,145	114,029	424,174
Powhatan	280,023	104,737	384,760
Prince George	408,093	137,257	545,350
Total - 13	\$ 6,792,589	\$ 2,596,052	\$ 9,388,641

1977-78 SECONDARY CONSTRUCTION ALLOCATIONS

County	Improvement Funds Budgeted in 1976-77 and Attributable to Sec. 33.1-23.4-"B"	5-Factor Funds Attributable to Sec. 33.1-23.4-"C"	Total
<u>Suffolk District</u>			
Accomack	\$ 745,792	\$ 282,114	\$ 1,027,906
Greensville	229,237	111,495	340,732
Isle of Wight	545,209	180,968	726,177
James City	271,036	115,718	386,754
City of Suffolk	767,427	260,788	1,028,215
Northampton	349,469	131,555	481,024
Southampton	556,743	244,739	801,482
Surry	196,179	97,211	293,390
Sussex	400,279	151,827	552,106
York	395,446	161,963	557,409
Total - 10	<u>\$ 4,456,817</u>	<u>\$ 1,728,378</u>	<u>\$ 6,185,195</u>

Fredericksburg District

Caroline	\$ 319,541	\$ 183,924	\$ 503,465
Essex	210,162	97,558	307,720
Gloucester	317,102	136,834	453,936
King George	207,895	75,174	283,069
King & Queen	190,342	93,757	284,099
King William	175,936	94,602	270,538
Lancaster	173,814	85,733	259,547
Mathews	125,579	62,293	187,872
Middlesex	116,781	65,672	182,453
Northumberland	223,772	106,216	329,988
Richmond	167,197	80,031	247,228
Spotsylvania	518,797	209,474	728,271
Stafford	521,623	202,929	724,552
Westmoreland	320,667	125,643	446,310
Total - 14	<u>\$ 3,589,208</u>	<u>\$ 1,619,840</u>	<u>\$ 5,209,048</u>

1977-78 SECONDARY CONSTRUCTION ALLOCATIONS

County	Improvement Funds Budgeted in 1976-77 and Attributable to Sec. 33.1-23.4-"B"	5-Factor Funds Attributable to Sec. 33.1-23.5-"C"	Total
<u>Culpeper District</u>			
Albemarle	\$ 952,272	\$ 381,151	\$ 1,333,423
Culpeper	474,805	157,740	632,545
Fairfax	3,933,410	2,819,886	6,753,296
Fauquier	733,319	292,251	1,025,570
Fluvanna	287,744	103,470	391,214
Greene	175,575	62,927	238,502
Loudoun	1,336,385	356,445	1,692,830
Louisa	591,819	191,948	783,767
Madison	377,417	112,128	489,545
Orange	416,712	148,871	565,583
Prince William	1,980,122	709,511	2,689,633
Rappahannock	223,713	78,131	301,844
Total - 12	\$ 11,483,293	\$ 5,414,459	\$ 16,897,752
<u>Staunton District</u>			
Alleghany	\$ 238,586	\$ 132,611	\$ 371,197
Augusta	1,377,587	466,250	1,843,837
Bath	332,091	106,849	438,940
Clarke	203,000	83,199	286,199
Frederick	617,562	243,050	860,612
Highland	237,951	80,454	318,405
Page	293,166	137,257	430,423
Rockbridge	545,237	212,853	758,090
Rockingham	1,308,579	461,394	1,769,973
Shenandoah	625,352	243,683	869,035
Warren	257,256	93,123	350,379
Total - 11	\$ 6,036,367	\$ 2,260,723	\$ 8,297,090
State Totals	\$ 51,365,724	\$ 21,116,411	\$ 72,482,135

## APPENDIX 2

## SOUTHWEST VIRGINIA COAL HAUL ROADS

	<u>TOTAL SECONDARY ROAD MILEAGE (1976)</u>		<u>TOTAL MILEAGE COAL HAUL ROADS</u>				<u>1977-78 ALLOCATIONS</u>		
	<u>HARD SURFACED</u>	<u>ALL WEATHER SURFACE</u>	<u>HARD SURFACED</u>		<u>ALL WEATHER SURFACE</u>		<u>ORDINARY MAINTENANCE</u>	<u>MAINTENANCE REPLACEMENT</u>	<u>CONSTRUCTION</u>
			<u>MI.</u>	<u>%</u>	<u>MI.</u>	<u>%</u>			
BUCHANAN	190	232	179	94%	108	47%	\$622,391	\$280,343	\$889,511
DICKENSON	139	204	62	45%	81	40%	448,985	178,688	519,504
LEE	242	240	21	9%	8	3%	534,204	260,523	667,675
RUSSELL	212	263	42	20%	26	10%	562,619	254,377	649,478
TAZEWELL	236	160	34	14%	12	8%	512,139	239,108	778,617
WISE	258	125	161	62%	47	38%	545,200	238,056	717,857

## APPENDIX 3

## SOUTHWEST VIRGINIA COAL HAUL ROADS

COUNTY	PRESENT REVENUE FROM (1%) COUNTY SEVERANCE TAX (YEARLY)	ESTIMATED ADDITIONAL 0.5% TAX	(1)	YEARS REQUIRED TO STRENGTHEN ALL COAL HAUL ROADS	ESTIMATED ADDITIONAL 0.75% TAX	YEARS REQUIRED TO STRENGTHEN ALL COAL HAUL ROADS	ESTIMATED ADDITIONAL 1% TAX	YEARS REQUIRED TO STRENGTHEN ALL COAL HAUL ROADS
			ESTIMATED COST TO STRENGTHEN ALL COAL HAUL ROADS					
BUCHANAN	\$3,940,000	\$1,970,000	\$21,140,000	11	\$2,955,000	7	\$3,940,000	5
DICKENSON	1,006,000	503,000	8,630,000	17	754,500	11	1,006,000	9
LEE	350,000 <sup>(2)</sup>	175,000	2,340,000	13	262,500	9	350,000	7
RUSSELL	578,000	289,000	5,380,000	19	433,500	12	578,000	9
TAZEWELL	830,000	415,000	3,760,000	9	622,500	6	830,000	5
WISE	2,220,000	1,110,000	17,510,000	16	1,665,000	11	2,220,000	8

(1) Estimated at \$100,000 per mile for hard surface roads and \$30,000 per mile for all weather roads.

(2) Estimated - Tax went into effect July 1, 1977.

#### APPENDIX 4

A BILL to amend the Code of Virginia, and to amend the Code of Virginia by adding a section numbered 58-266.1:2 relating to local coal severance taxes.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 58-266.1:2 as follows:

*§ 58-266.1:2. Counties and cities authorized to levy severance tax on coal.—Notwithstanding the provisions of § 58-266.1:1 of the Code of Virginia, each county or city entitled to levy the taxes authorized under § 58-266.1:1 and levies such tax shall, in addition, levy a license tax on every person engaging in the business of severing coal or gases from the earth. Such additional tax shall be at the rate of one per centum of such person's gross receipts from the sale of coal or gases severed within such county or city. Such gross receipts shall be the fair market value measured at the time such coal or gases are utilized or sold for utilization in such county or city.*

*Any taxpayer owing taxes hereunder shall submit a quarterly return, on forms provided by the Department of Taxation, showing total gross receipts received on the sale of coal or gases severed and the total tonnage of coal and gases so severed within each county or city wherein such taxpayer conducts his business. Any tax due hereunder for such quarterly period shall be submitted with such return. The Department of Taxation shall collect and administer taxes levied under this section and shall deposit such monies in a special fund credited to the Department of Highways and Transportation in the name of the county or city in which such tax is levied. Such funds shall only be expended for the purpose of strengthening coal hauling roads within the county or city. The Department shall promulgate necessary rules and regulations for the implementation of this section.*

*When such strengthening is completed in a county or city, the Department of Highways shall certify such completion to the Department of Taxation and such tax no longer shall be imposed in that county or city, unless otherwise provided by law.*

## APPENDIX 5

A BILL to amend and reenact §§ 33.1-145, 33.1-147, 33.1-151, 33.1-152, 33.1-161 and 33.1-162 of the Code of Virginia, relating to abandonment of railroad crossings; procedures.

Be it enacted by the General Assembly of Virginia:

1. That §§ 33.1-145, 33.1-147, 33.1-151, 33.1-152, 33.1-161 and 33.1-162 of the Code of Virginia are amended and reenacted as follows:

§ 33.1-145. Abandonment of road or crossing; procedure.—The Commissioner on his own motion or on petition of any interested landowner may also cause any section of a road of the State Highway System, or any crossing by such road of the lines of a railway company, or crossing by the lines of a railway company of such road, to be abandoned altogether as a public road or as a public crossing, as the case may be, by complying substantially with the following procedure:

The Commissioner or any interested landowner may file application with the State Highway *and Transportation* Commission, setting out the section of the road or the crossing sought to be abandoned as a public road. The State Highway *and Transportation* Commission, upon the filing of such application, shall give notice thereof by (a) posting a notice of such application at least three days before the first day of a regular term of the circuit court, at the front door of the courthouse of the county in which the section of the road or crossing sought to be abandoned as a public road or crossing is located, or if it be partly in two or more counties, at the front door of the courthouse of each of such counties, or (b) by publication in two or more issues of some newspaper published in the county, or one of them, and shall also mail by registered mail a notice of the application to the board of supervisors or other governing body of the county or counties. If such road or crossing be in a town of thirty-five hundred population or less, notice shall be given to the governing body of the town in the same manner as notice is required to be given to the governing body of the county in which the town is located.

Upon petition of one or more landowners in the county or counties affected by such proposed abandonment, or of the board of supervisors or other governing body of either of such counties, or upon petition of the governing body of any such town in which the road or crossing is located, filed with the State Highway *and Transportation* Commission within thirty days after notice is posted or published and mailed as aforesaid, but not thereafter, the State Highway *and Transportation* Commission or a representative thereof shall hold a public hearing in one of the counties for the consideration of the application and shall give notice of the time and place of the hearing by at least two publications thereof in some newspaper published in the county, or one of them, or having general circulation therein and also mail notice of the hearing to the board of supervisors or other governing body of the county or counties and to the town council of the town in which the road is located.



If a petition be not filed as aforesaid for a public hearing, or if after public hearing is held the State Highway *and Transportation* Commission, or a majority thereof, is satisfied that no public necessity exists for the continuance of the section of road as a public road, or the crossing as a public crossing, or that the welfare of the public would be served best by abandoning the section of road or the crossing, as a public road or crossing, it ~~may~~ shall enter (i) *within four months next after the thirty days during which notice was posted where no petition for a public hearing was filed, or (ii) within four months next after the public hearing* an order on its minutes abandoning the section of road as a public road or the crossing as a public crossing, and thereupon the section of road shall cease to be a public road, unless taken over by the board of supervisors or other governing body or local road authorities as hereinafter provided, or the crossing shall cease to be a public crossing; or if the Commission be not so satisfied it ~~may~~ shall enter *within the specified four months* an order dismissing the application.

§ 33.1-147. Appeal to circuit court.—Any one or more of the petitioners, or the board of supervisors, or other governing body of any county or town council of the town in which the section of road or the crossing is wholly or partly located, or the Commissioner may within thirty days from the entry of the order by the State Highway *and Transportation* Commission, but not afterwards, appeal from the order to the circuit court of the county in which the section of road or the crossing, or the major portion thereof, sought to be abandoned, under § 33.1-145, is located. *Where the State Highway and Transportation Commission fails to enter an order pursuant to § 33.1-145, such person or persons named in this section shall within thirty days from such non-entry, but not afterwards, have a right of appeal to the appropriate circuit court.* Such ~~appeal~~ appeals shall be by petition filed in the clerk's office of such court, setting out the order appealed from *or the cause appealed from where no order was entered* and the grounds of such appeal. Upon the filing of such petition, the clerk of the circuit court shall docket the appeal, *giving it a preferred status*, and if the appeal be by any of the landowners who filed a petition with the State Highway *and Transportation* Commission for a public hearing shall have notice of such appeal served upon the Commonwealth's attorney and the Commissioner, and if the appeal be by the board of supervisors or other governing body or Commissioner, notice thereof shall be served upon the landowners who filed petition with the State Highway *and Transportation* Commission for a public hearing. No such appeal shall be tried by the court within ten days after notice is given, as hereinabove provided, unless such notice be waived. The circuit court shall hear the matter de novo with further right of appeal as provided by the general law. Upon the hearing of the appeal, the court shall ascertain and by its order determine whether public necessity exists for the continuance of the section of road or the crossing as a public road or crossing, or whether the welfare of the public will be served best by abandoning the section of the road or the said crossing as a public road or crossing and shall enter its order accordingly. The clerk of the court shall certify a copy of the order of the court to the State Highway *and Transportation* Commission.

Upon any such appeal, if it shall appear to the court that by the



abandonment of such section of road or such crossing as a public road or crossing any party to such appeal would be deprived of access to a public road, the court may cause the railway company and the board of supervisors or other governing body, or either, to be made parties to the proceedings, if not already parties, and may enter such orders as seem to it just and proper for keeping open such section of road or such crossing for the benefit of such party or parties as would by such abandonment be deprived of access to a public road. The provisions of this section shall not apply to any discontinuance of a portion of the State Highway System under § 33.1-144.

§ 33.1-151. Abandonment of road or crossing; procedure.—The governing body of any county on its own motion or upon petition of any interested landowner may cause any section of the secondary system of highways or any crossing by the road of the lines of a railway company, or crossing by the lines of a railway company of the road, deemed by it to be no longer necessary for the uses of the secondary system of highways, to be abandoned altogether as a public road or as a public crossing, as the case may be, by complying substantially with the following procedure:

The governing body of the county shall give notice of intention to abandon any such road or crossing by (a) posting a notice of such application at least three days before the first day of a regular term of the circuit court, at the front door of the courthouse of the county in which the section of the road or crossing sought to be abandoned as a public road or crossing is located, or (b) by posting notice in at least three places on and along the road or crossing sought to be abandoned for at least thirty days, and, in either case, by publication in two or more issues of some newspaper having general circulation in the county, and the governing body shall also give notice of its intention to abandon such road or crossing to the State Highway *and Transportation* Commission or the Commissioner thereof. In any case in which the road or crossing proposed to be abandoned lies in two or more counties, the governing bodies concerned shall not abandon such road or crossing unless and until the governing bodies of the other county or counties in which such road or crossing is located agree thereto; the procedure in such cases shall conform mutatis mutandis to the procedure prescribed for the abandonment of a road or crossing located entirely within a county.

Upon petition of one or more landowners in the county affected by such proposed abandonment or of the State Highway *and Transportation* Commission filed with the governing body of the county within thirty days after notice is posted and published as aforesaid, but not thereafter, the governing body shall hold a public hearing on the proposed abandonment and shall give notice of the time and place of the hearing by at least two publications thereof in some newspaper having general circulation in the county and shall also give notice to the State Highway *and Transportation* Commission thereof.

If a petition be not filed as aforesaid for a public hearing, or if after a public hearing is held the governing body is satisfied that no public necessity exists for the continuance of the section of the secondary road as

a public road, or the crossing as a public crossing, or that the safety and welfare of the public would be served best by abandoning the section of road or the crossing, as a public road or crossing, it ~~may~~ shall enter (i) *within four months next after the thirty days during which notice was posted where no petition for a public hearing was filed.* or (ii) *within four months next after the public hearing an order on its minutes abandoning the section of road as a public road or the crossing as a public crossing, and thereupon the section of road shall cease to be a public road, or if the governing body be not so satisfied it may shall dismiss the application within the specified four months .*

A finding by the governing body of a county that a section of the secondary system of highways is no longer necessary for the uses of the secondary system may be made if the following conditions exist:

A. The road is located within a residence district as the latter is defined in § 46.1-1 (24);

B. The residence district is located within a county having a density of population exceeding one thousand per square mile;

C. Continued operation of the section of road in question constitutes a threat to the public safety and welfare; and,

D. Alternate routes for use after abandonment of the road are readily available.

Any order of abandonment issued under this section and based upon this consideration shall enumerate and declare the existence of the above conditions and such declaration shall give rise in subsequent proceedings, if any, to a presumption of adequate justification for the abandonment.

§ 33.1-152. Appeal to circuit court.—Any one or more of the petitioners, or the State Highway and Transportation Commissioner, may within thirty days from the entry of the order by the governing body, but not afterwards, appeal from the order to the circuit court of the county in which the section of road or the crossing sought to be abandoned is located. *Where the governing body fails to enter an order pursuant to § 33.1-151, such person or persons named in this section shall within thirty days from such non-entry, but not afterwards, have a right of appeal to the appropriate circuit court.* Such ~~appeal~~ appeals shall be by petition filed in the clerk's office of such court, setting out the order appealed from *or the cause appealed from where no order was entered* and the grounds of such appeal. Upon the filing of such petition, the clerk of the circuit court shall docket the appeal *. giving it a preferred status.* and if the appeal be by any of the landowners who filed a petition with the governing body for a public hearing shall have notice of such appeal served upon the Commonwealth's Attorney and the Commissioner and if the appeal be by the Commissioner notice thereof shall be served upon the governing body of the county and landowners who filed petition with the governing body for a public hearing. No such appeal shall be tried by the court within ten days after notice is given, as hereinabove provided, unless such notice be

waived. The circuit court shall hear the matter de novo with further right of appeal as provided by the general law. Upon the hearing of the appeal, the court shall ascertain and by its order determine whether public necessity exists for the continuance of the section of road or the crossing as a public road or crossing, or whether the welfare of the public will be served best by abandoning the section of the road or the said crossing as a public road or crossing and shall enter its order accordingly.

Upon any such appeal, if it shall appear to the court that by the abandonment of such section of road or such crossing as a public road or crossing any party to such appeal would be deprived of access to a public road, the court may cause the railway company and the governing body, or either, to be made parties to the proceedings, if not already parties, and may enter such orders as seem to it just and proper for keeping open such section of road or such crossing for the benefit of such party or parties as would by such abandonment be deprived of access to a public road.

§ 33.1-161. Action of governing body.—If a petition be not filed as aforesaid for a public hearing, or if after a public hearing is held, the governing body is satisfied that no public necessity exists for the continuance of the section of road as a public road, or the crossing as a public crossing, or that the welfare of the public would be served best by abandoning the section of road or the crossing, as a public road or crossing, it ~~may~~ shall enter (i) within four months next after the thirty days during which notice was posted where no petition for a public hearing was filed, or (ii) within four months next after the public hearing an order on its minutes abandoning the section of road as a public road or the crossing as a public crossing, and thereupon the section of road shall cease to be a public road or if the governing body be not so satisfied it ~~may~~ shall enter within the specified four months an order dismissing the application.

§ 33.1-162. Appeal to circuit court.—Any one or more of the petitioners or the governing body, within thirty days from the entry of the action of the governing body on the proposal but not afterwards, may appeal from the action of the governing body to the circuit court of the county. *Where the governing body fails to enter an order pursuant to § 33.1-161, such person or persons named in this section shall within thirty days from such non-entry, but not afterwards, have a right of appeal to the appropriate circuit court.* Such ~~appeal~~ appeals shall be by petition filed in the clerk's office of such court, setting out the action or inaction appealed from and the grounds for appeal. Upon the filing of such petition the clerk of the circuit court shall docket the appeal, *giving it a preferred status*, and if the appeal be by any of the landowners who filed a petition with the governing body for a public hearing, shall have notice of such appeal served upon the Commonwealth's Attorney and the governing body. No such appeal shall be tried by the court within ten days after notice is given, as hereinabove provided, unless such notice be waived. The circuit court shall hear the matter de novo with further right of appeal as provided by the general law. The court may appoint viewers to make such investigation and findings as the court requires of them. Upon the hearing of the appeal, the court shall ascertain and by its order determine whether

public necessity exists for the continuance of the section of road or the crossing as a public road or crossing, or whether the welfare of the public will be served best by abandoning the section of the road or the crossing as a public road or crossing and shall enter its order accordingly.

Upon any such appeal, if it shall appear to the court that by the abandonment of such section of road or such crossing as a public road or crossing any party to such appeal would be deprived of access to a public road, the court may cause the railway company and the governing body, or either, to be made parties to the proceedings, if not already parties, and may enter such orders as seem to it just and proper for keeping open such section of road or such crossing for the benefit of such party or parties as would by such abandonment be deprived of access to a public road.



## APPENDIX 6

FUNDS NEEDED TO PAY UNFUNDED DEBT SERVICE COSTS <sup>1/</sup>

(\$000's)

Fiscal Year	Bonds Outstanding	Debt-Service			District of Columbia	Virginia				Maryland		Total			
		75% of Interest Cost	Principal	Total		20% of Total	Alexandria	Arlington	Fairfax City	Fairfax County	Falls Church		Montgomery County	Prince George's County	
1973	445,000					37,833	5,240	10,868	0,234	11,547	0,130	27,992	18,224	15,945	34,173
1974	820,000														
1975	997,000														
1976	997,000														
1977	997,000	15,303	-	15,303	3,061	1,158	161	332	7	353	4	857	558	488	1,046
1978	997,000	36,602	-	36,602	7,320	2,769	384	794	17	845	10	2,050	1,334	1,167	2,501
1979	997,000	52,460	-	52,460	10,492	3,563	550	1,138	25	1,211	14	2,938	1,912	1,673	3,585
1980	997,000	58,002	-	58,002	11,600	4,309	608	1,258	27	1,339	15	3,247	2,114	1,850	3,964
1981	997,000	58,002	-	58,002	11,600	4,389	608	1,258	27	1,339	15	3,247	2,114	1,850	3,964
1982	997,000	58,002	-	58,002	11,600	4,388	608	1,258	27	1,339	15	3,247	2,114	1,850	3,964
1983	990,085	58,002	6,315	64,317	12,863	4,866	674	1,395	30	1,445	17	3,601	2,344	2,052	4,396
1984	984,035	57,655	6,650	64,305	12,861	4,866	674	1,395	30	1,484	17	3,600	2,344	2,051	4,395
1985	977,025	57,290	7,010	64,300	12,860	4,865	674	1,395	30	1,484	17	3,600	2,344	2,051	4,395
1986	967,285	56,995	9,740	66,645	13,329	5,043	698	1,446	31	1,538	17	3,730	2,429	2,126	4,555
1987	957,025	56,363	10,260	66,623	13,325	5,041	698	1,445	31	1,538	17	3,729	2,428	2,125	4,553
1988	946,210	55,791	10,815	66,606	13,321	5,040	698	1,445	31	1,538	17	3,729	2,427	2,125	4,552
1989	934,810	55,190	11,400	66,590	13,318	5,039	698	1,445	31	1,537	17	3,729	2,427	2,124	4,551
1990	920,545	54,554	14,265	68,819	13,764	5,207	721	1,493	32	1,588	18	3,852	2,508	2,195	4,703
1991	902,358	53,747	18,187	71,934	14,387	5,443	754	1,561	33	1,661	19	4,028	2,622	2,295	4,917
1992	883,151	52,700	19,207	71,907	14,381	5,441	754	1,560	33	1,660	19	4,026	2,621	2,294	4,915
1993	862,868	51,591	20,283	71,874	14,375	5,438	753	1,559	34	1,659	19	4,024	2,620	2,293	4,913
1994	841,376	50,423	21,492	71,915	14,383	5,442	754	1,560	34	1,660	19	4,027	2,621	2,294	4,915
1995	818,264	49,183	23,115	72,298	14,460	5,471	758	1,569	34	1,669	19	4,049	2,635	2,306	4,941
1996	793,464	47,850	24,797	72,647	14,529	5,497	761	1,576	34	1,677	19	4,067	2,648	2,317	4,965
1997	766,889	46,417	26,575	72,992	14,590	5,523	765	1,584	34	1,685	19	4,087	2,660	2,328	4,988
1998	738,436	44,879	28,453	73,332	14,666	5,549	768	1,591	34	1,693	19	4,105	2,673	2,339	5,012
1999	707,962	43,231	30,474	73,705	14,741	5,577	772	1,599	34	1,701	19	4,125	2,686	2,351	5,037
2000	675,348	41,466	32,614	74,080	14,816	5,605	776	1,607	35	1,710	19	4,147	2,700	2,363	5,063
2001	640,596	39,574	34,752	74,326	14,865	5,624	779	1,613	35	1,716	19	4,167	2,709	2,371	5,090
2002	603,649	37,556	36,947	74,503	14,901	5,632	781	1,616	35	1,720	19	4,171	2,716	2,377	5,093
2003	564,406	35,411	39,243	74,654	14,931	5,649	782	1,620	35	1,723	19	4,179	2,721	2,381	5,102
2004	522,713	33,130	41,693	74,823	14,965	5,662	784	1,623	35	1,727	19	4,188	2,727	2,387	5,114
2005	478,456	30,708	44,257	74,965	14,993	5,672	786	1,626	35	1,730	19	4,196	2,732	2,391	5,123
2006	431,518	28,134	46,938	75,072	15,014	5,680	787	1,629	35	1,733	20	4,204	2,736	2,394	5,130
2007	381,682	25,403	49,836	75,239	15,040	5,693	789	1,632	35	1,737	20	4,213	2,742	2,400	5,142
2008	328,813	22,503	52,869	75,372	15,074	5,703	790	1,635	35	1,740	20	4,220	2,747	2,404	5,151
2009	272,729	19,424	56,084	75,508	15,102	5,711	791	1,638	35	1,743	20	4,227	2,752	2,409	5,161
2010	213,258	16,159	59,471	75,630	15,126	5,723	793	1,641	35	1,746	20	4,235	2,757	2,412	5,169
2011	150,163	12,694	63,095	75,789	15,158	5,735	794	1,644	35	1,750	20	4,243	2,762	2,418	5,180
2012	83,102	9,016	66,861	75,877	15,175	5,741	795	1,646	35	1,752	20	4,248	2,765	2,420	5,185
2013	43,615	5,117	39,687	44,804	8,961	3,390	470	972	21	1,034	11	2,508	1,633	1,429	3,062
2014	13,260	2,704	30,355	33,059	6,612	2,501	346	717	15	763	9	1,850	1,205	1,055	2,260
2015	-	794	13,260	14,054	2,811	1,063	147	305	7	324	4	787	512	448	960
TOTAL		1,529,935	997,000	2,526,935	505,387	191,203	26,482	54,824	1,183	58,332	657	141,478	92,102	80,604	132,706

<sup>1/</sup> Based on 1974 allocation percentages for rail capital. Assumes 20% local funding.

APPENDIX 7

Chart showing the local share at 10% and State share at 90%  
of the 20% of interest & capital payments on metro bonds  
not funded by Congress  
(given in thousands)

..... Local Share @ 10% .....

<u>Fiscal Year</u>	<u>Alexandria</u>	<u>Arlington</u>	<u>Fairfax City</u>	<u>Fairfax County</u>	<u>Falls Church</u>	<u>Total Local Share @ 10%</u>	<u>State Share @ 90%</u>	<u>Total</u>
1977	16.1	55.2	.7	35.3	.4	85.7	771.5	857
1978	38.4	79.4	1.7	84.5	1.0	205.0	1,845.0	2,050
1979	55.0	113.8	2.5	121.1	1.4	293.8	2,644.2	2,938
1980	60.8	125.8	2.7	133.9	1.5	324.7	2,922.3	3,247
1981	60.8	125.8	2.7	133.9	1.5	324.7	2,922.3	3,247
1982	60.8	125.8	2.7	133.9	1.5	324.7	2,922.3	3,247
1983	67.4	139.5	3.0	148.5	1.7	360.1	3,240.0	3,601
1984	67.4	139.5	3.0	148.4	1.7	360.0	3,240.0	3,600
1985	67.4	139.5	3.0	148.4	1.7	360.0	3,240.0	3,600
1986	69.8	144.6	3.1	153.8	1.7	373.0	3,357.0	3,730
1987	69.8	144.5	3.1	153.8	1.7	372.9	3,356.1	3,729
1988	69.8	144.5	3.1	153.8	1.7	372.9	3,356.1	3,729
1989	69.8	144.5	3.1	153.7	1.7	372.9	3,356.1	3,729
1990	72.1	149.5	3.2	158.8	1.8	385.2	3,466.8	3,852
1991	75.4	156.1	3.3	166.1	1.9	402.8	3,625.2	4,028
1992	75.4	156.0	3.3	166.0	1.9	402.6	3,623.4	4,026
1993	75.5	155.9	3.4	165.9	1.9	402.4	3,621.6	4,024
1994	75.4	156.0	3.4	166.0	1.9	402.7	3,624.5	4,027
1995	75.8	156.9	3.4	166.9	1.9	404.9	3,644.1	4,049
1996	76.1	157.6	3.4	167.7	1.9	406.7	3,660.3	4,067
1997	76.5	158.4	3.4	168.5	1.9	408.7	3,678.5	4,087
1998	76.8	159.1	3.4	169.3	1.9	410.5	3,694.5	4,105
1999	77.2	159.9	3.4	170.1	1.9	412.5	3,712.5	4,125
2000	77.6	160.7	3.5	171.0	1.9	414.7	3,732.3	4,147
2001	77.9	161.5	3.5	171.6	1.9	416.2	3,745.8	4,162
2002	78.1	161.6	3.5	172.0	1.9	417.1	3,753.9	4,171
2003	78.2	162.0	3.5	172.3	1.9	417.9	3,761.1	4,179
2004	78.4	162.3	3.5	172.7	1.9	418.8	3,769.2	4,188
2005	78.6	162.6	3.5	173.0	1.9	419.6	3,776.4	4,196
2006	78.7	162.9	3.5	173.3	2.0	420.4	3,783.6	4,204
2007	78.9	163.2	3.5	173.7	2.0	421.3	3,791.7	4,213
2008	79.0	163.5	3.5	174.0	2.0	422.0	3,798.0	4,220
2009	79.1	163.8	3.5	174.3	2.0	422.7	3,804.3	4,227
2010	79.3	164.1	3.5	174.6	2.0	423.5	3,811.5	4,235
2011	79.4	164.4	3.5	175.0	2.0	424.3	3,818.7	4,243
2012	79.5	164.6	3.5	175.2	2.0	424.8	3,823.2	4,248
2013	47.0	97.2	2.1	103.4	1.1	250.8	2,257.2	2,508
2014	34.6	71.7	1.5	76.5	.9	185.0	1,665.0	1,850
2015	14.7	30.5	.7	32.4	.4	78.7	708.3	787
TOTAL	2,648.2	5,482.4	118.5	5,882.4	65.7	14,147.8	127,350.2	141,478