

Dennis C. Carlson

PROPOSED STATE-AID DISTRIBUTION FORMULA
RECOMMENDED BY THE
JOINT COMMITTEE OF COUNTY COMMISSIONERS AND COUNTY HIGHWAY ENGINEERS

January 27, 1956

JOINT COMMITTEE ON THE FORMULA FOR DISTRIBUTION OF STATE-AID FUNDS

COUNTY COMMISSIONERS

Edward McKeever, Chairman	St. Louis County
S. Earl Ainsworth	Hennepin
Ray Edman	Marshall
Lew Larson	Fillmore
N. B. Schultenover	Todd

COUNTY HIGHWAY ENGINEERS

(Combined Executive and Legislative Committee of the
Minnesota County Highway Engineers' Association)

R. C. Deegan, Chairman	Blue Earth County
H. S. Bronson	Ramsey
A. C. Chard	Tilkin
V. E. Crabtree	Koochiching
G. W. Deibler	St. Louis
J. H. Dupont	Stevens
W. P. Huber	Otter Tail
M. M. Nygaard	Polk
H. E. Palmer	Dakota
L. P. Pedersen	Hennepin
Norman Schmidt	Todd
A. F. Stegner	Fillmore
Clarence Turnell	Tright
E. S. Vevea	Anoka
E. S. Ward	Kandiyohi
Claude Zehetner	Lincoln

BACKGROUND

The Joint County Engineers and County Commissioners Committee requested assistance of the Commissioner of Highways to determine a suitable formula for the distribution of the Road-User Fund established by the proposed Constitutional Amendment No. 2. The Commissioner of Highways granted this request by assigning members of the County Division and Traffic and Planning Division to assist as consultants in this project.

As a preliminary step, the committee and consultants reviewed many studies, the most notable being the Washington State Study. It was agreed that the criteria used in the Washington Study are logically sound and are also applicable to the State of Minnesota. Therefore, before any factor was selected for use in the formula, that factor had to be measured against the following criteria:

1. The Factors Chosen Should Actually Measure the Need for County Roads and Road Funds in Each County in Minnesota.

One common error is the selection of factors measuring ability to pay, or "fiscal capacity". This is the opposite of good practice, since the county with greatest ability to support its own services may be the one least in need of aid. If allotment is based on need, it will provide a standard minimum support of highway costs, regardless of the county's capacity.

2. The Factors Chosen Should Accurately Reflect Changes in Need.

If the formula adopted is to stand for many years, the factors chosen must not be too static. If they are, they may provide good distribution in 1957, but poorer and poorer distribution as conditions change. On the other hand, a set of factors too sensitive to changes, for instance, business conditions, might lack sufficient stability.

3. The Factors Chosen Should Allow for Differences in the Unit Cost of Constructing and Maintaining Highways to Provide the Same Quality of Service in Different Regions.

Proportionate need for highways must be multiplied by a cost factor to determine proportionate need for highway funds.

4. The Factors Chosen Should be Capable of Simple and Accurate Measurement Once a Year.

Preference should be given to factors which are measured already for some other purpose, and factors should be avoided which require special continuous or seasonal measurements.

5. The Factors Chosen Should Not be Determined by nor Subject to Influence of County Officials.

This is an obvious precaution to avoid laying county officials open to unfounded charges of attempting to inflate the factors, with resulting increases in allotments.

The Minnesota formula, as proposed, is composed of the following factors: Money Needs, Deficiency, Mileage, Registration and Equalization. Few, if any, factors will meet all of those criteria but the committee feels that each of the factors selected are compatible within practical limits and can be fully supported.

The Automotive Safety Foundation, in making a complete Highway Transportation Study of Minnesota, established a county primary road system, together with the immediate needs of construction on this road system. This study, prepared for the legislature, included a recommendation as to the exact amount of county primary road mileage to be assigned to each county. The committee, in developing a formula, was obligated to adhere to these recommendations and has applied the formula to these fixed routes. Each county engineer supplemented the immediate needs by adding all construction needs, including bridges, for the next 25-year period. Thus we have a needs cost and a mileage figure that meet the established criteria within reasonable limitations.

The line of reasoning and the method of obtaining each of the factors used are described on the following pages.

MILEAGE FACTOR

The Mileage Factor was determined from each county's portion of the Automotive Safety Foundation's primary study system. This study system did not take into consideration county lines or other governmental delineations, but was selected on the basis of the following criteria:

1. Carried relatively heavier traffic volumes.
2. Connects towns, communities, shipping points, and markets within a county or in adjacent counties.
3. Provide access to rural churches, schools and community meeting halls.
4. Serve as principal arteries of rural mail routes and school bus routes.
5. Act as collectors of traffic from several roads of individual interest.
6. Occur at reasonable intervals consistent with the density of population.

The Mileage Factor was assigned a value of 30% and is second in importance in the formula. This 30% allows for the reflection of maintenance costs, which under ordinary operating conditions are assumed to be fairly equal throughout the state; therefore a county having a large amount of mileage will receive a larger amount of money to compensate for added maintenance costs.

MONEY NEEDS FACTOR

As previously stated, the county engineer of each county supplemented the Automotive Safety Foundation immediate needs figures with his future 25-year construction needs. These 25-year needs were screened by the Joint Committee and consultants and were adjusted where need be, within traffic volume groups, to compensate for difference in construction cost caused by ruggedness of terrain, shortage of material, or difference in labor costs. These adjusted 25-year construction needs were then recorded as the basic money need for each county.

In order to compensate for the counties' great variation in valuation and ability to pay, a 10-mill levy on the county's total valuation and a 6-mill levy for the urban counties, was computed as a basic levy for road and bridge purposes. Assuming that 80% of the cost of construction would be borne by the future road-user fund, a residual of 20% would remain the county's liability; therefore 20% of the 6 or 10-mill levy for a 25-year period was subtracted from the total money needs as determined for each county, the remainder being the money needs used in the computation of the factor. This adjustment appears to be very logical in assisting the counties that are not financially able to help themselves to the extent necessary without penalizing those counties that have completed substantial road improvements.

It was found that the formula as established would have worked to the disadvantage of four counties. This results from the recognized fact that inherent in every formula are intangible factors, immeasurable and undefinable, therefore a Deficiency Factor has been applied as a supplement to the Money Needs Factor to raise these four counties to a point where they will be equitably compensated for those intangibles.

Recognizing that "need" established the prime consideration for the distribution of road-user funds to counties, this factor was weighted at 50% of the total allotment.

REGISTRATION

In order to apply a factor wherein a measure of road use is considered, the Registration Factor was selected. The best measure of road use is probably the number of vehicle miles travelled when such information is available, but usable and acceptable traffic counts over all county roads are not available to the extent needed for the allocation of gas tax funds. The next best measure of road use is the number of vehicles using the county roads. These figures are available each year from the Motor Vehicle Division, Secretary of State's office, and since they are compiled independently of county road officials, they are not subject to manipulation. Each county has been credited with its proportionate share of the total motor vehicle registration recorded by place of residence.

EQUALIZATION

Ten percent of the Road-user funds has been allocated to the Equalization Factor and is justified in that it makes partial provision for needs that do not vary with Money Needs, Mileage or Registration. Chief among these are administrative overhead costs and costs due to intercounty traffic.

The committee investigated many other factors and rejected them as not meeting the recognized criteria. The effect of using such factors would tend toward equal distribution without regard to actual need. One factor might favor a few counties and another would offset this advantage. After many months of study, the committee recommends this formula as a fair and equitable basis of distribution of road-user funds between the counties.

Proposed Formula as Recommended by the Joint County Commissioners and County Engineers Committee
 showing the factors used and the allocation to the various counties.

County	-----50%----- Money Needs Factor	Deficiency Factor	30% Mileage Factor	10% Registration Factor	10% Equalization Factor	100% Total Factor	Proposed Formula Money Allotment	1955 Allotment to the Counties
Aitkin	.46		.37	.04	.12	.98	213,000	158,846
Anoka	.42		.20	.11	.12	.85	185,000	120,455
Becker	.56		.45	.08	.12	1.20	231,000	172,892
Beltrami	.61		.47	.07	.12	1.26	274,000	214,762
Benton	.38		.22	.05	.12	.77	167,000	116,976
Big Stone	.19	.04	.21	.04	.12	.60	131,000	116,976
Blue Earth	.67		.39	.15	.12	1.32	287,000	244,453
Brown	.41		.31	.10	.12	.93	202,000	166,256
Carlton	.38		.26	.08	.12	.84	183,000	116,976
Carver	.44		.20	.06	.12	.82	178,000	116,976
Cass	.80		.56	.05	.12	1.52	331,000	233,356
Chippewa	.28		.25	.06	.12	.71	154,000	121,123
Chisago	.314		.20	.05	.12	.71	154,000	116,976
Clay	.54		.41	.11	.12	1.17	254,000	182,237
Clearwater	.37		.33	.03	.12	.85	185,000	116,976
Cook	.33		.15	.01	.12	.61	133,000	116,976
Cottonwood	.48		.32	.07	.12	.98	213,000	135,706
Crow Wing	.60		.37	.11	.12	1.19	259,000	181,052
Dakota	.67		.28	.17	.12	1.23	268,000	195,651
Dodge	.43		.25	.04	.12	.84	183,000	116,976
Douglas	.41		.35	.08	.12	.95	207,000	138,647
Faribault	.57		.34	.10	.12	1.12	244,000	169,620
Fillmore	1.06		.44	.09	.12	1.70	370,000	201,965
Freeborn	.64		.44	.12	.12	1.31	285,600	188,528
Goodhue	.45		.31	.12	.12	.99	215,000	188,779
Grant	.27		.23	.04	.12	.66	144,000	116,976
Hennepin	2.55		.53	2.23	.12	5.42	1,178,000	437,612
Houston	.58		.26	.05	.12	1.00	218,000	160,719
Hubbard	.38		.34	.04	.12	.88	191,000	138,617
Isanti	.30		.22	.04	.12	.68	148,000	116,976
Itasca	1.09		.75	.12	.12	2.07	450,000	247,210
Jackson	.54		.37	.06	.12	1.08	235,000	135,357
Kanabos	.27		.19	.03	.12	.61	133,000	116,976

County	-----50%-----		Page					Proposed Formula Money Allotment	1955 Allotment to the Counties
	Mcney Needs Factor	Deficiency Factor	30% Mileage Factor	10% Registration Factor	10% Equalization Factor	100% Total Factor			
Kandiyohi	.76		.44	.10	.12	1.41	307,000	172,683	
Kittson	.59		.41	.04	.12	1.15	250,000	138,647	
Koochiching	.24	.54	.16	.05	.12	1.11	241,000	218,240	
Lac qui Parle	.39		.32	.05	.12	.88	191,000	146,807	
Lake	.49		.20	.03	.12	.84	183,000	121,123	
Lake of the Woods	.29	.13	.20	.02	.12	.76	165,000	119,081	
Le Sueur	.42		.26	.07	.12	.87	189,000	120,455	
Lincoln	.32		.27	.04	.12	.75	163,000	116,976	
Lyon	.45		.31	.08	.12	.95	207,000	153,515	
McLeod	.36		.21	.10	.12	.79	172,000	149,447	
Mahnomen	.15	.02	.19	.02	.12	.60	131,000	116,976	
Marshall	.88		.65	.06	.12	1.70	370,000	221,852	
Martin	.53		.35	.10	.12	1.09	237,000	174,872	
Meeker	.36		.28	.07	.12	.83	181,000	150,285	
Mille Lacs	.40		.20	.05	.12	.77	167,000	116,976	
Morrison	.72		.46	.08	.12	1.37	298,000	186,804	
Mower	.73		.36	.15	.12	1.35	294,000	220,561	
Murray	.47		.34	.05	.12	.97	211,000	121,403	
Nicollet	.49		.25	.06	.12	.91	198,000	123,932	
Nobles	.54		.34	.09	.12	1.08	235,000	153,145	
Norman	.66		.41	.05	.12	1.23	268,000	157,241	
Olmsted	.56		.31	.16	.12	1.14	248,000	214,968	
Otter Tail	1.37		.92	.16	.12	2.56	556,000	361,474	
Pennington	.30		.23	.04	.12	.69	150,000	116,976	
Pine	.69		.45	.06	.12	1.31	285,000	193,894	
Pipestone	.27		.24	.06	.12	.69	150,000	116,976	
Polk	1.41		.88	.13	.12	2.53	550,000	282,239	
Pope	.26		.25	.05	.12	.68	148,000	116,976	
Ramsey	1.43		.21	1.09	.12	2.84	617,000	437,612	
Red Lake	.30		.22	.02	.12	.66	144,000	116,976	
Redwood	.75		.39	.09	.12	1.34	291,000	190,802	
Renville	.49		.51	.09	.12	1.20	261,000	188,314	
Rice	.41		.23	.10	.12	.86	187,000	160,201	
Rock	.34		.24	.04	.12	.74	161,000	116,976	
Roseau	.64		.53	.05	.12	1.33	289,000	200,850	

County	-----5% ----- Money Needs Factor	Deficiency Factor	30% Mileage Factor	10% Registration Factor	10% Equalization Factor	100% Total Factor	Proposed Formula Money Allotment	1955 Allotment to the Counties
St. Louis	2.66		1.52	.63	.12	4.92	1,070,000	437,612
Scott	.31		.17	.06	.12	.66	144,000	116,976
Sherburne	.29		.18	.03	.12	.62	135,000	116,976
Sibley	.38		.26	.06	.12	.82	178,000	121,378
Stearns	.90		.58	.21	.12	1.81	394,000	301,977
Steele	.36		.25	.08	.12	.81	176,000	138,143
Stevens	.29		.26	.04	.12	.71	154,000	116,976
Swift	.43		.38	.06	.12	.96	213,000	120,455
Todd	.68		.41	.07	.12	1.27	276,000	190,416
Traverse	.30		.28	.03	.12	.73	159,000	116,976
Tabasha	.82		.28	.05	.12	1.26	274,000	170,752
Tadena	.39		.24	.04	.12	.79	172,000	228,213
Taseca	.40		.27	.05	.12	.84	183,000	118,715
Washington	.32		.18	.11	.12	.73	159,000	121,225
Watonwan	.35		.23	.06	.12	.76	165,000	116,976
Wilkin	.48		.31	.04	.12	.94	204,000	130,888
Winona	.73		.28	.12	.12	1.25	272,000	231,609
Wright	.74		.41	.10	.12	1.36	296,000	178,443
Yellow Medicine	.41		.32	.06	.12	.91	198,000	146,982
	<u>49.27</u>	<u>.73</u>	<u>30.00</u>	<u>10.00</u>	<u>10.00*</u>	<u>100.00</u>	<u>21,750,000</u>	<u>14,587,052</u>
	50.00							

*Totals may not add because of rounding.

Dated January 24, 1956