

INFORMATION ITEM

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TO: Transportation Advisory Board
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SUBJECT: 2022 Regional Solicitation: Potential Options for Geographic Balance

Over many Regional Solicitation cycles, TAB and its technical committees have struggled with the concept of geographic (or regional) balance (i.e., how funding and projects are spread across the region). Geographic balance is not part of how projects are scored. Instead, it is a secondary lens used by TAB when selecting a funding scenario. In the 2020 funding cycle, overprogramming funds were used to meet geographic balance objectives by funding at least one project within each county.

“Geographic balance” has never been defined and seems to mean different things to different participants. Some of the key questions to consider are discussed below.

1. What is the Geographic Goal?

This essentially asks whether simply rating applications on regionally based criteria and measures is sub-optimal in that it does not necessarily geographically balance (however that may be defined) the location of projects and federal funding. From a technical standpoint, feedback may be based on the best approach for improving transportation cohesively across the region.

2. Geography

Traditionally, balance has been explored county-by-county (Figures 1A-C and 5A). This method was not selected for any compelling reason; it was used initially as counties were some of the primary applicants for many projects. This provides a general look across the region, though does not distinguish, for example, Minneapolis versus northwestern Hennepin County. Other potential geographies include:

- Council districts (Figures 2A-B and 5B) – 16 Smaller areas nearly equal in population.
- Regional quadrant (Figures 3A-B and 5C) – Four large areas, as opposed to seven. The concentration near the “four corners” (i.e., center point) and edges (the two downtowns) could call into the question the optimality of this map.
- Land Use (Figures 4A-B and 5D) – This is the only view that doesn’t focus on directional geography, but more on city, suburb, and rural project spread.

From a technical standpoint, is any of the above geographies (or some other geography) preferable to the others?

3. StreetLight Analysis

Project location within one of these geographies does not fully describe its spread of benefits. StreetLight Insight analysis of the locations of 2020 awarded roadway projects show these roadways currently serve both local and regional trips.

Results of this analysis are visualized in attached Figures 6-22 and provided in alternate format in Table 1. Minnesota House of Representatives districts were used as origins and destinations in this analysis, striking a balance between spatial resolution, population proportionality, and processing time. The largest shares of trips start in a project's district or near districts. For most projects, small shares of trips start throughout the region. Some projects see benefits in more focused areas.

This analysis covers peak morning (6am-10am) weekday trips to provide insight on trip direction. Trip starts are not always home locations; they are where a trip started, like a home, office, childcare center, or a variety of places. The analysis covers all funded roadway projects in 2020 except the Traffic Management Technologies category.

4. What does “Geographic Balance” Mean?

What is the best approach to defining “geographic balance?” Traditionally, discussions of geographic balance have focused on comparing the total federal funding for projects to county population, as this is how most of the federal funding is given to the region (i.e., based on population). As discussed above, this was mostly a function of simplicity and the committees have never had a discussion on whether this is the best way to measure balance. Some options for how to determine balance include:

- Distribution (numerator): Federal funding? Number of Projects? Something else?
- Appropriate balance (denominator): Population? Jobs? Population + Jobs? Something else, perhaps related to existing travel patterns?

For example, this issue is currently framed as federal funding / population by county. But it could also be number of projects / jobs by land use. Any technical rationale that members have to consider an updated approach can be considered by TAB as it determines how to address geographic balance.

The above-mentioned figures show geographic distribution of projects and funds by each geography over the past four Regional Solicitation cycles.

- Figures 1A-B show that federal funds over the last four cycles (2014-2020) are similar to regional distribution of population and jobs. Figure 1C shows roadway project funding is allocated in a similar proportion to VMT.
- Figures 2A-B show that central Council districts receive high funding versus population, though that evens out when compared to jobs.¹
- Figures 3A-B show distribution by four quadrants. The Northeast quadrant shows proportionately less funding than population. However, note that many projects are located near the midpoint of all four quadrants.
- Figures 4A-B show that funding and jobs are roughly the same proportion.

5. What, if Anything, is Needed in Advance of Application?

Technical committee members are closer to the application process than TAB members. Therefore, TAB may value technical input on whether any geographic balance methods or rules

¹ The presented council district analysis is limited by spatial resolution of project data; accuracy of funding information by council district will improve through an ongoing project to improve historical project data.

(see part 5 below) could impact how potential applicants approach the number or type of applications they will submit.

6. Future Questions

At this point, the objective is to find a common understanding of what geographic balance means. However, over the next one-to-two meeting cycles practical application of geographic balance may be considered. Some of these questions may include:

- Should geographic balance be assessed over time or cycle-by-cycle? In either case, how would this be implemented?
- Should geographic balance be codified in the application, or should it continue to be addressed as projects are selected (which has been the practice to this point)?
- Will the Highway Safety Improvement Program (HSIP) solicitation be considered? Traditionally HSIP has not been considered, but the question of whether to consider it has never been raised.

Funding & Programming Committee Comments

- The geographic spread over the past four Regional Solicitation cycles has been balanced and balance should be examined over several Regional Solicitation cycles, as opposed to within each cycle.
- Explore using Streetlight data or other information to determine who is benefiting from various projects (as is addressed in 3, above).

Technical Advisory Committee Comments

- Agreed that geographic balance should be evaluated over time rather than a single solicitation.
- Regional balance should be looked at more broadly than simply making sure each county is awarded a project every cycle.