



MEMORANDUM

To: STP Project Selection Committee

From: CMAP Staff

Date: August 4, 2022

Subject: STP Shared Fund Methodology – Transportation Impact: Jobs + Households

Purpose: Staff requests committee discussion of this proposal for minor modifications to the jobs + households scoring criterion.

Action Requested: Discussion

The jobs + households (jobs + hh) score is a component of a project's Transportation Impact score, along with Need and Improvement. As stated in the Shared Fund Application Booklet, "The benefits of a transportation project often cross municipal and county borders and can provide significant improvements to people who are not located in the project's immediate vicinity. For each project, CMAP uses the regional travel model to generate a travel shed of the places people come from and go to using the facility. The score in this category is calculated by adding up the total number of jobs and households within each project's travel shed and converting the total to a score out of 10, indexed to the other submitted projects." This methodology leads to higher jobs + hh scores for transit projects that inherently have a larger "reach" than roadway or bike/ped projects and for projects within the region's most densely populated areas. While these results are not unexpected, concerns have been raised that there are projects that have scored very high in the need and/or improvement categories that are not able to rise to the level of funding consideration due to a perceived disparity in jobs + hh points.

Staff examined scoring from prior calls for projects as well as the characteristics of the counties and City of Chicago to inform project selection committee discussion regarding the jobs + hh score. As a result of this examination, staff recommends a slight adjustment to the methodology to acknowledge the proportion of households served by a project, relative to the total households within the project area, rather than just the raw number of households within the travel shed. This change improves the equity of the scoring, while maintaining an appropriate spread of points across projects and continues emphasizing projects that encourage transit use and discourage sprawl.

Past scoring

During the 2019 and 2021 calls for projects (CFPs), the range and average jobs + hh scores by project location and type were:

Project Location & Type	# of apps	Maximum jobs + hh	Minimum jobs + hh	Max pts	Min pts	Ave pts
Cook	49	2,167,927	44,461	9.0	0.3	5.4
Transit	6	2,167,927	61,748	9.0	0.4	6.8
Highways	43	1,873,929	44,461	8.8	0.3	5.15
Chicago	16	3,222,989	968,092	9.9	7.4	9.0
Transit	8	3,222,989	1,230,620	9.9	7.8	9.4
CDOT	8	2,475,127	968,092	9.2	7.4	8.5
Collar Counties	62	2,102,412	17,617	8.9	0.1	3.7
Transit	0	0	0	0.0	0.0	0.0
Highways	62	2,102,412	17,617	8.9	0.1	3.7
DuPage	13	915,176	134,152	7.8	1.3	3.9
Kane	20	492,721	17,617	7.3	0.1	3.4
Kendall	2	331,853	329,853	4.9	3.8	4.3
Lake	11	838,203	133,853	6.9	0.7	4.0
McHenry	5	596,285	161,775	5.7	0.8	2.3
Will	11	2,102,412	151,685	8.9	0.4	4.1
All Applications	127	3,222,989	17,617	9.9	0.1	4.9

As shown above, the average jobs + hh score among all applications is 4.9. The average in the collar counties is below the regional average, while the average in Chicago is well above the regional average. Although the collar counties' averages are low, the maximum scores in some counties are competitive with the maximums in Chicago and Suburban Cook.

Households served

In the CMAP region, there are a total of 3,266,741 households¹, distributed as shown below.

Area	Total households
Chicago	1,142,725
Suburban Cook	944,215
DuPage	348,216
Kane	180,374
Kendall	45,534
Lake	244,523
McHenry	114,282
Will	240,009
Region	3,266,741

¹ CMAP Community Data Snapshots (2021)

Considering the intention of the shared fund to direct funding to projects that are more regional in nature, staff compared the number of households served by individual projects from the 2021 call for projects cycle to the total number of households within the county where each project is located. This revealed that, on average projects in less dense counties may serve a significantly larger number of households than the total households within the county, and projects in more dense counties may serve a significantly smaller number of households than the total households within the county, as illustrated in the table below.

Area	Total hh within area	Average hh in project travel sheds	% of total hh in area
Chicago	1,142,725	391,102	34.2%
Suburban Cook	944,215	148,652	15.7%
DuPage	348,216	149,478	42.9%
Kane	180,374	141,468	78.4%
Kendall	45,534	143,546	315.3%
Lake	244,523	73,625	30.1%
McHenry	114,282	67,781	59.3%
Will	240,009	117,262	48.9%
All Projects	3,266,741	149,859	42.8%

Recognizing that counties are large and irregularly shaped and that the actual service reach of projects is more concentrated, staff proposes defining a “project area” based on the project’s modeled travel shed. This would be determined by measuring the distance from the center of the project to the farthest zone within the travel shed, then using that distance as a radius to define all zones that make up the project area. Staff further proposes splitting the jobs + hh (sum) scoring into two equally weighted (5 points each) components: jobs and households. The jobs component would be unchanged from past cycles, with the score calculated by adding up the total number of jobs within each project’s travel shed and converting the total to a score out of 5, indexed to the other submitted projects. The households component would involve calculating the ratio of households within each project’s travel shed to the total households within the project area and converting that ratio to a score out of 5, indexed to the other submitted projects.

Conclusion

Some disparity in the jobs + households scoring does exist between Chicago, Suburban Cook, and the Collar Counties. While this disparity is partially by design – to direct funding to projects that encourage transit use, serve in a regional capacity, and discourage sprawl – a small change to the scoring methodology would result in a more equitable process that elevates projects within less dense areas that are more regional relative to more locally-oriented projects.