Let's Be Reasonable

How the Section 3A MBTA Multifamily Mandate can advance housing affordability, climate change mitigation, and racial justice.

A proposal from the

Metropolitan Area Planning Council

November 17, 2021

MGL Ch. 40A, Section 3A

- Section 3A. (a)(1) An MBTA community shall have a zoning ordinance or by-law that provides for at least 1 district of **reasonable size** in which multi-family housing is permitted as of right; provided, however, that such multi-family housing shall be without age restrictions and shall be suitable for families with children. For the purposes of this section, a district of reasonable size shall: (i) have a minimum gross density of 15 units per acre, subject to any further limitations imposed by section 40 of chapter 131 and title 5 of the state environmental code established pursuant to section 13 of chapter 21A; and (ii) be located not more than 0.5 miles from a commuter rail station, subway station, ferry terminal or bus station, if applicable.

The context for Section 3A (Three Imperatives)

- Included in the Housing Choices section of the legislation, aimed at **increasing housing production** in order to meet growing demand and provide more options for residents and newcomers.
- Adopted by the legislature days after the release of a Clean Energy and Climate Plan that set ambitious goals for **reduction of transportation-related GHG emissions**—goals that can only be achieved through reduced driving and increased transit use.
- Implemented as a long-overdue racial reckoning is calling on every public agency and program to examine how it can redress past inequities and **advance racial justice** in ways both large and small.

Recommendations

1. Define “reasonable size” based on total net yield (new units) of the proposed districts, rather than acreage or total units.
2. Set a target for regionwide multifamily zoning capacity (net yield); use that target to set a baseline net yield requirement for all municipalities.
3. Use a formula to tailor net yield requirements to community-specific conditions, based on land availability, transit access, and housing exclusion.
4. Use net yield requirements to incentivize affordable housing requirements.
5. Provide data resources, tools, and standards that will enable efficient, fair, and transparent implementation of the program.
6. Phase in the net yield requirements over time, starting low and increasing on a predictable schedule.

Reasonable Size definition

- Various metrics for "reasonable size" have been considered: district acreage, total capacity (including existing units), net yield, or some combination thereof.
- Section 3A specifies a minimum gross density, but not a maximum density. Small, high-density districts could enable more units than larger moderate-density districts.
- Housing choices is focused on creating zoning capacity for *new housing,* not on legalizing nonconforming uses or getting credit for prior development.
- Using net yield as the sole metric provides municipalities with a single number to plan toward, rather than a complicated multipart standard.
- The state would be able to know at the outset what the potential zoning capacity would be, rather than waiting on the outcome of dozens of municipal decisions over multiple years.

Baseline net yield

- Multifamily housing demand in the MBTA District (excluding Boston) is in the range of 100,000 to 130,000 new homes from 2020 – 2030
- State could set a goal to create capacity for 45,000 to 90,000 units in section 3A districts. This is equivalent to 2.5% to 5.0% of existing housing stock in MBTA municipalities subject to the law.
- This regional percentage could serve as the baseline net yield for municipalities, multiplied by existing units to produce a net yield unit count.
- Each 1% of net yield is equivalent to approximately 18,000 housing units.
- Net yield could be phased in over time; e.g., start at 1% of 2020 housing stock and increase at regular intervals. This would make it easier for communities to comply and would discourage them from delaying compliance.

Reasonable size formula

- To accommodate the diverse constraints and opportunities that exist across MBTA communities, net yield requirement could be tailored based on three factors: land availability, transit accessibility, and housing exclusion.
- Measures for each of the three factors would be normalized and combined to create a composite score.
- Factors could be weighted differently and the composite score could be adjusted to control the overall range of scores.
- Composite score would be applied to the baseline net yield to produce an adjusted net yield above or below the baseline.
- Formula requires explicit policy decisions about eligible area, data sources, weights, range, and baseline net yield.
- Each municipality would be assigned an adjusted net yield specific to their local conditions, opportunities and constraints.

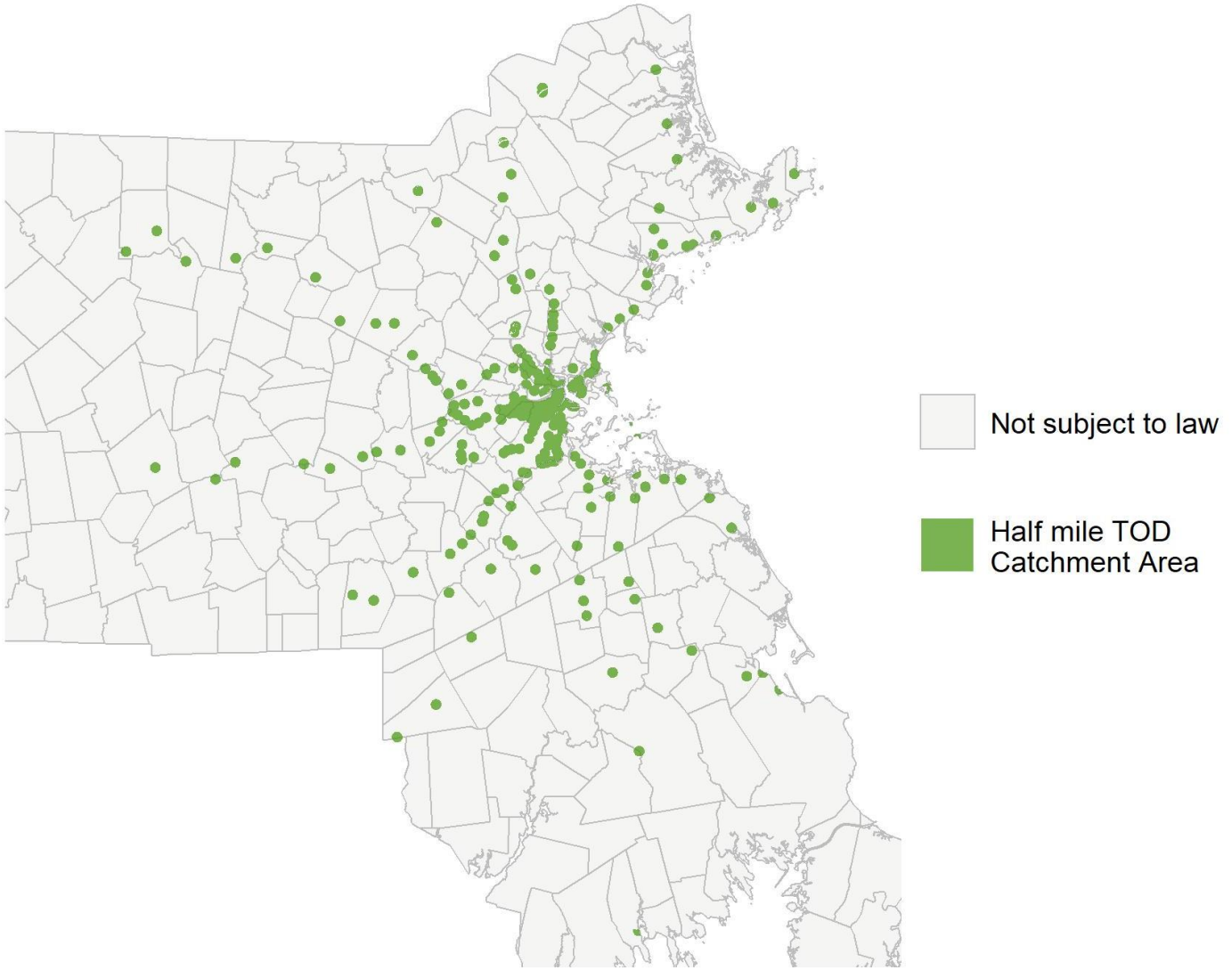
Section 3A Reasonable Size Formula Proof of Concept

Available Land

- Approximately 70,500 acres within 0.5 mile radius of a transit stations in the 175 MBTA municipalities
- Subtract 'absolute' constraints such as water bodies, protected open space, public utilities, floodplains, cemeteries, etc. (others could be added.)
- Approximately 44,900 acres are potentially available for development or redevelopment.

MBTA Transit Station Half-Mile Catchment Area

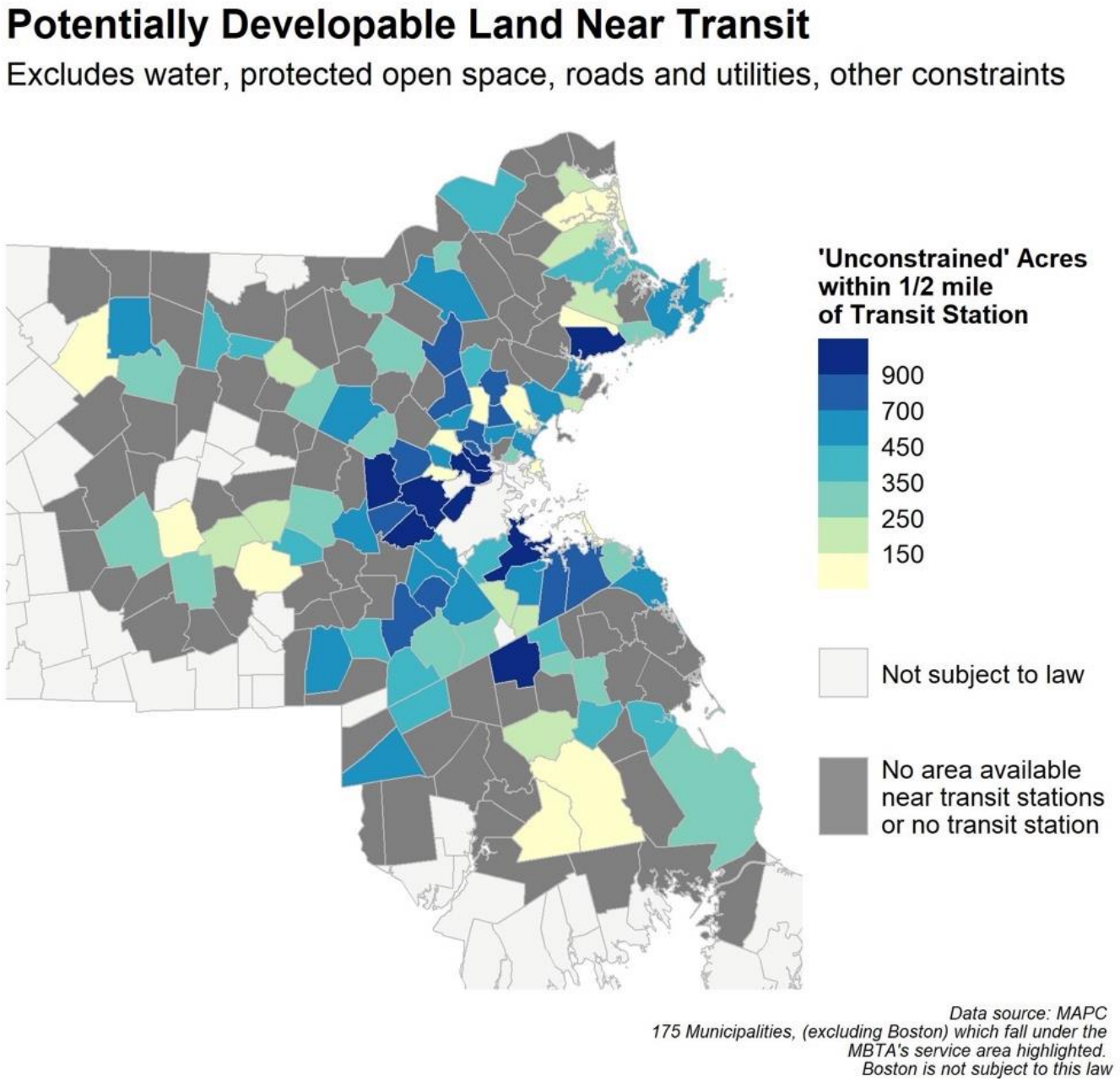
Catchment Zone: Half mile radius around MBTA Commuter and Rapid Transit Stations



Data source: MAPC
175 Municipalities, (excluding Boston) which fall under the MBTA's service area highlighted.
Boston is not subject to this law

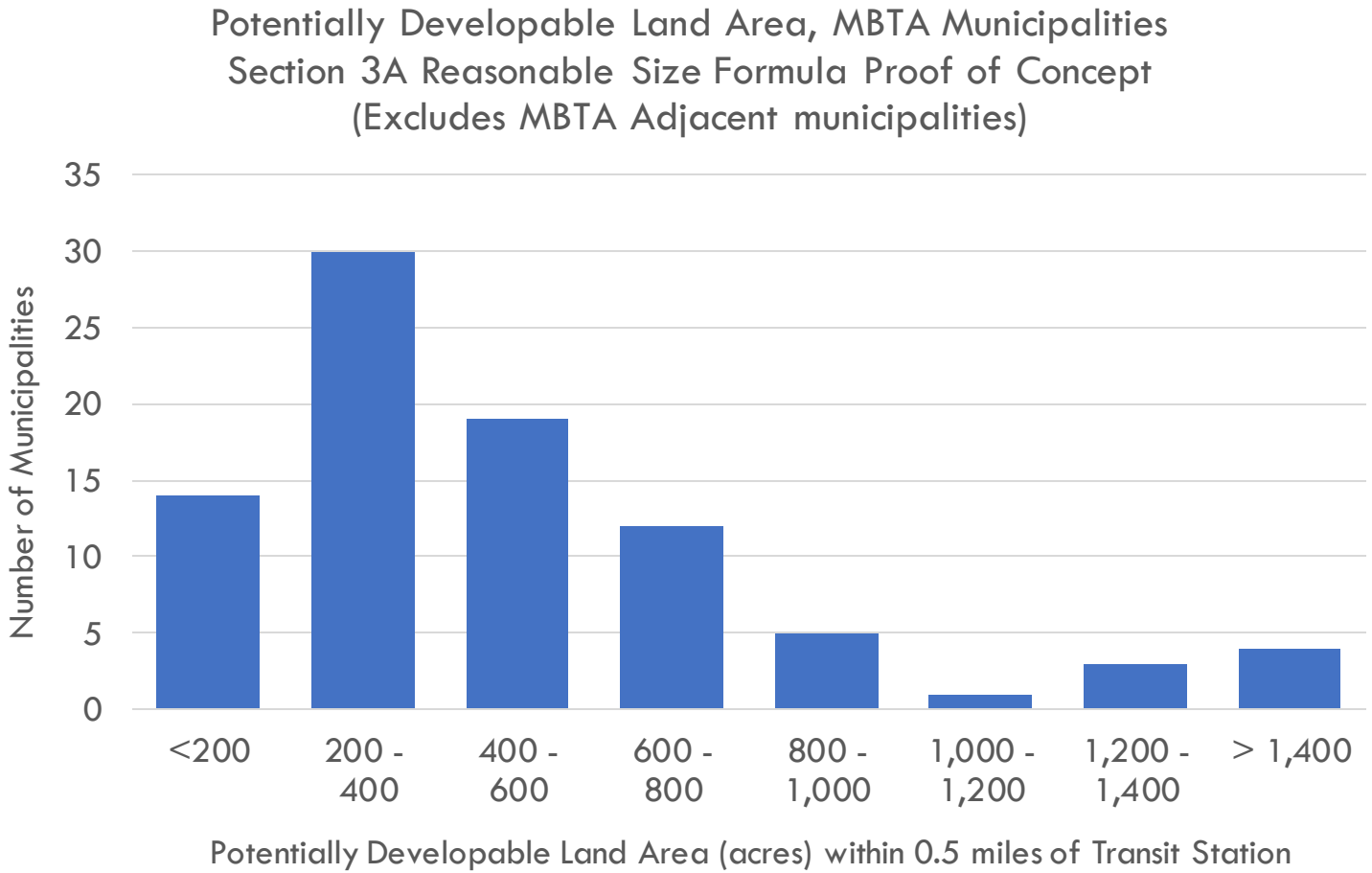
Available Land

- To score each municipality, sum up potentially developable land in eligible areas (regardless of where transit stop is located.)
- Policy decisions about eligible land area (e.g., walkshed vs. radius) will influence totals for each municipality



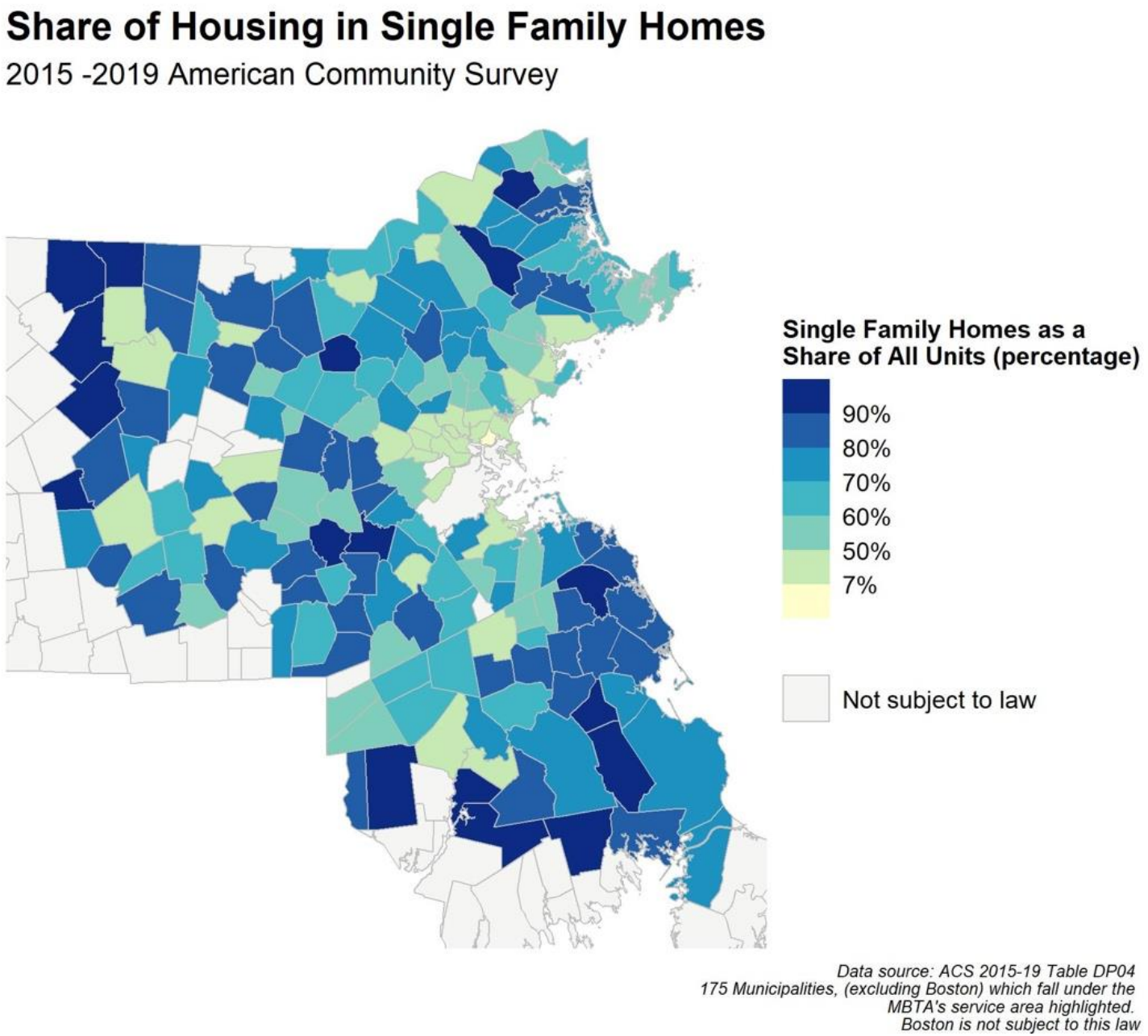
Available Land

- Acreage varies widely from more than 1,000 acres in a dozen communities to less than 200 acres in 14 munis with a transit area.
- Median value 504 acres.
- Calculations of available land depend on policy decisions about eligible locations and share of district that must be within ½ mile.



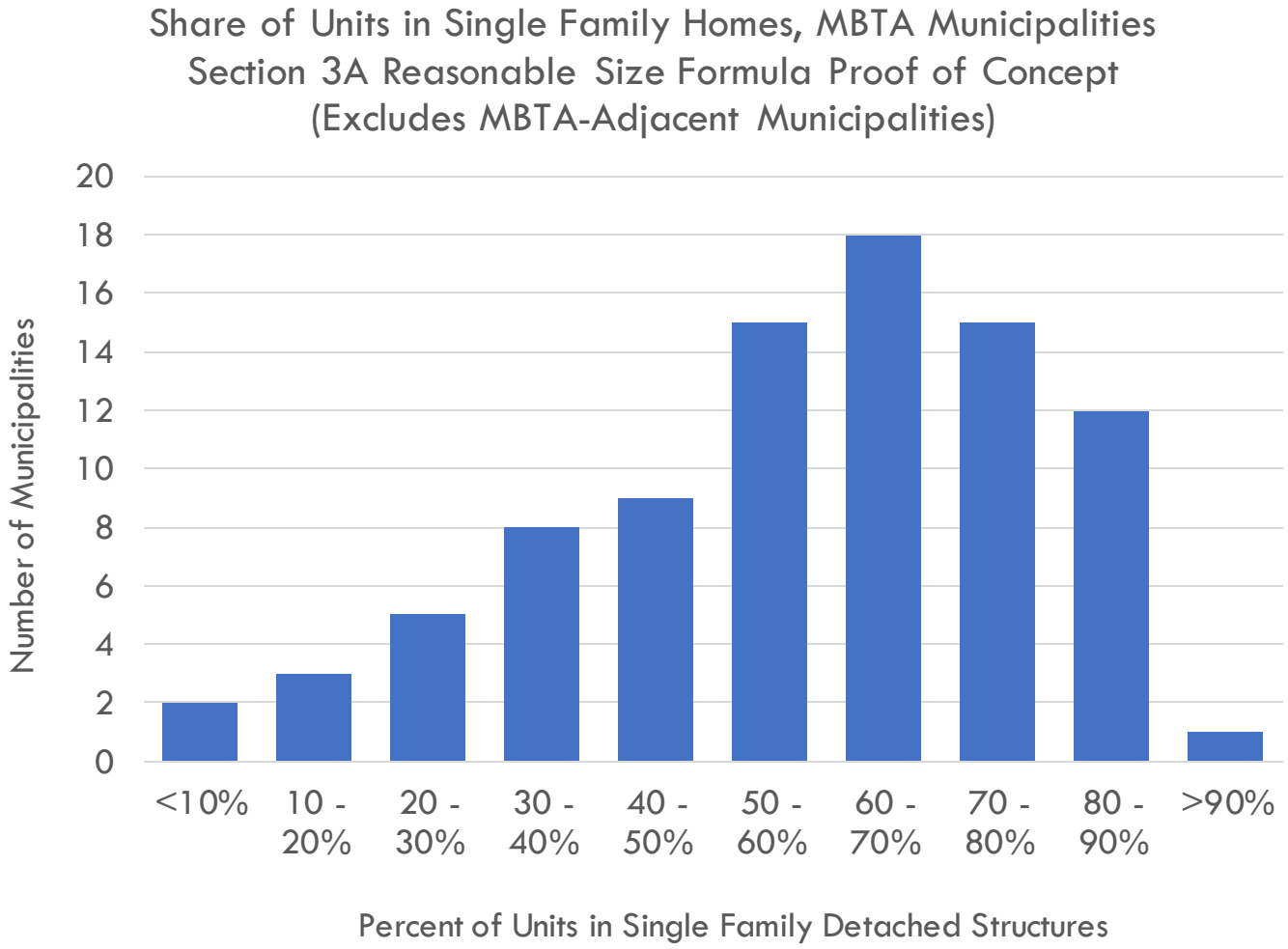
Housing Exclusion

- There are many different aspects of housing diversity and exclusivity (tenure, size, cost, physical accessibility), but the legislation is clearly focused on availability of multifamily housing.
- To score each municipality, we use estimates form the American Community Survey about the share of units that are single family detached homes.



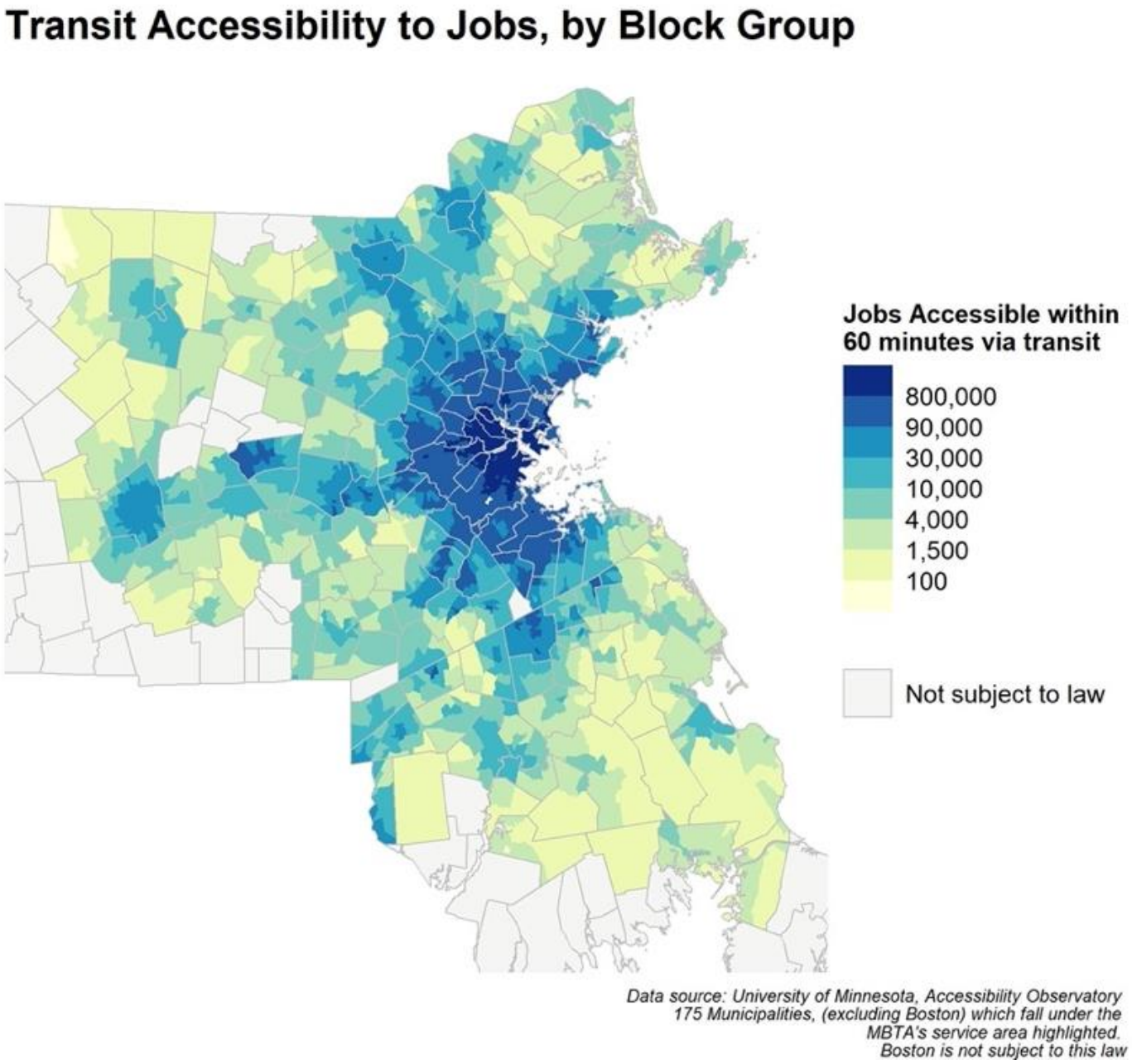
Housing Exclusion

- Housing diversity measures range from 2% multifamily to over 93%.
- Average 58%
- Standard deviation 20%



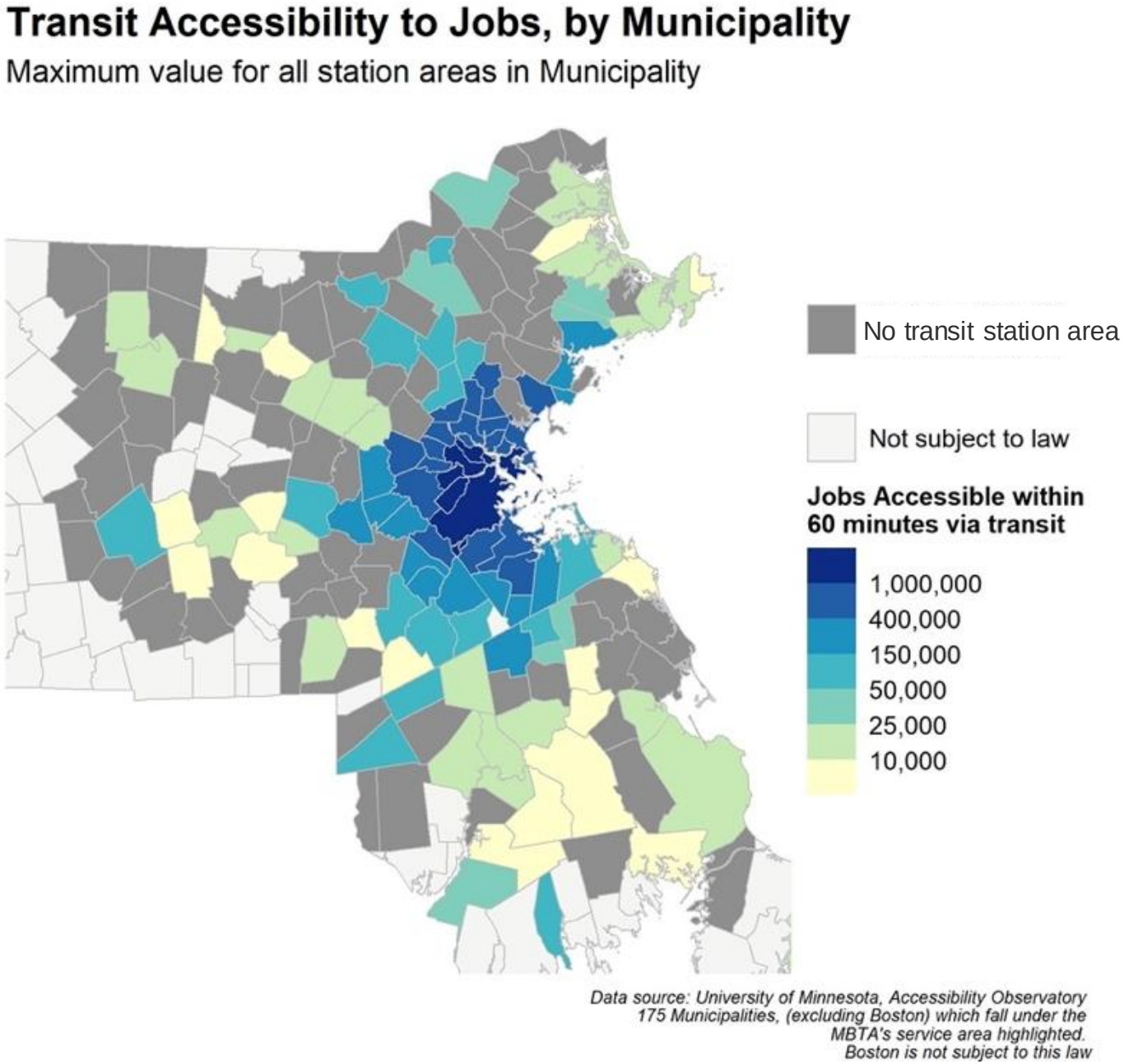
Transit Access

- Transit accessibility to jobs is an excellent predictor of vehicle ownership, VMT, and transport-related household GHG emissions.
- Job access correlates with access to other important destinations such as school, retail, services.
- Estimates of transit accessibility to jobs during peak commute periods are available at the block group level, based on transit schedules, walking time, and employment data.
- Transit accessibility highest near the Inner Core and along frequent commuter rail lines.



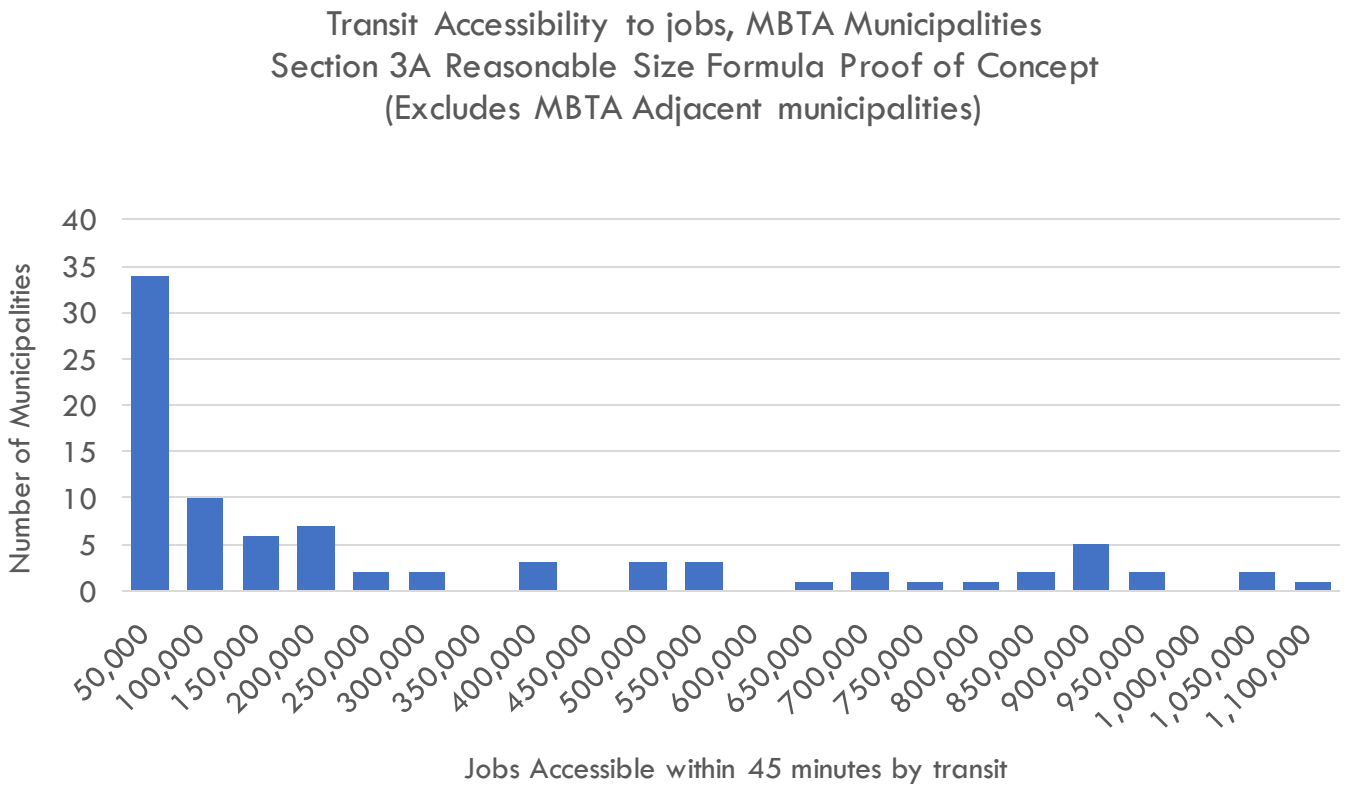
Transit Access

- To score each municipality, we take the maximum value for transit access to employment from within all available transit station areas in a municipality.
- Future refinements could incorporate average of all station areas, weighted by land area.
- Statistics not calculated for municipalities without station area.



Transit Access

- Values range from fewer than 25,000 jobs to more than 1 million.
- Average value 260,000 jobs.
- Transit accessibility scores could be modified to account for variation in service throughout the day or access to destinations other than employment.

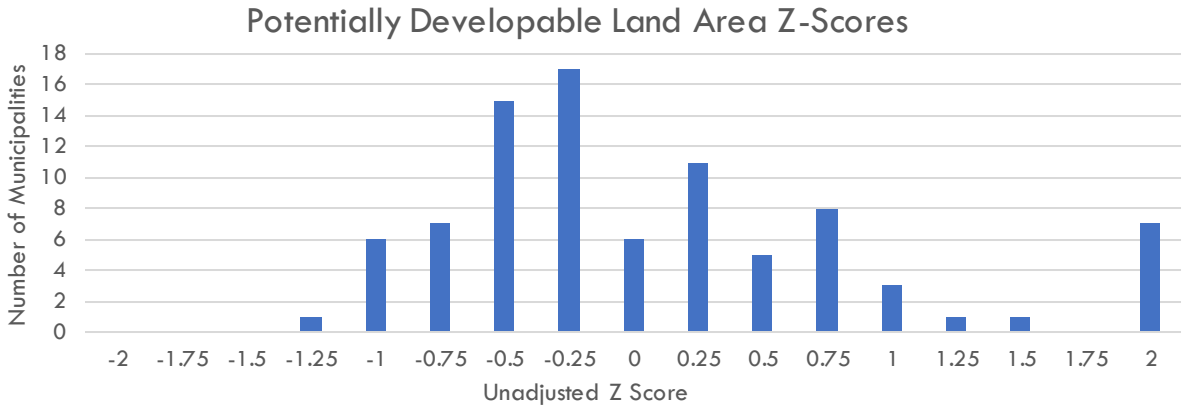


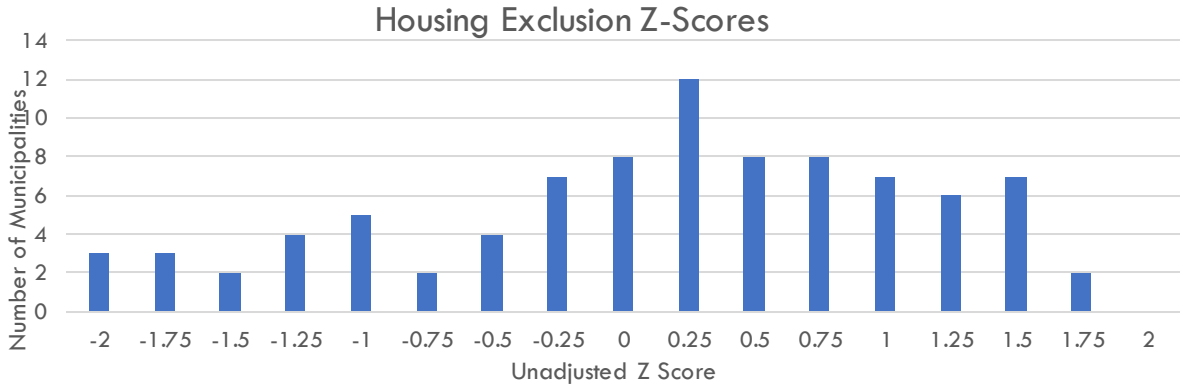
Normalization, Weighting, and Compression

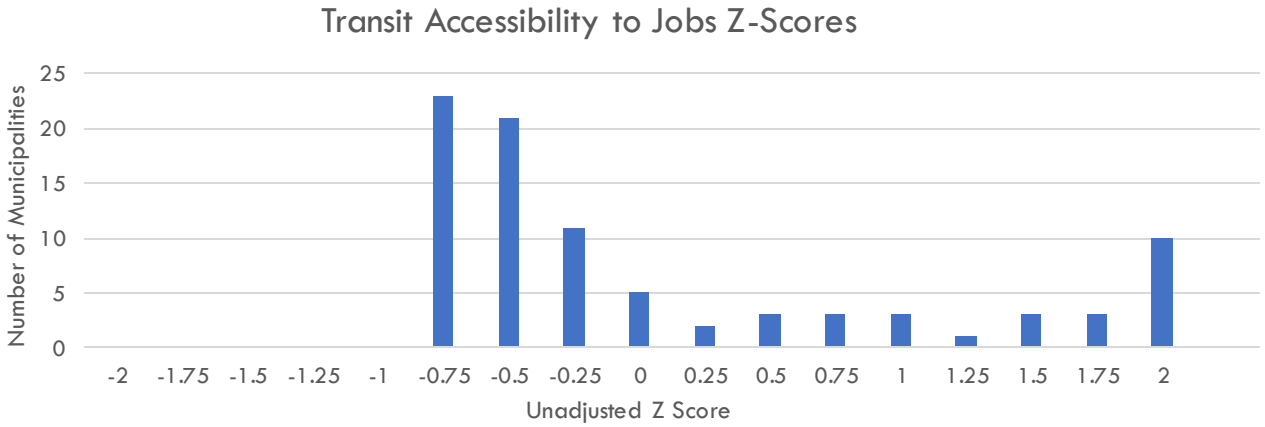
- To account for different units and ranges, all three factors are normalized using z-scores: variance from mean expressed in terms of standard deviation.
- Z-score may be positive or negative. Average z-score always zero, standard deviation of scores always 1.
- Scores are capped at -2.0 and +2.0.
- Factor z-scores are added together to create a combined score; weights can be applied to one or more factors to increase/decrease their share of the combined score.
- Compression is applied to limit the range of the combined score
- The resulting composite score is added to 1 and multiplied by the baseline net yield to produce an adjusted net yield.
- Aggregate net yield effectively unchanged by weighting and compression.

Factor Z-scores

- Municipalities with very high or low z-scores may see the biggest adjustment to net yield



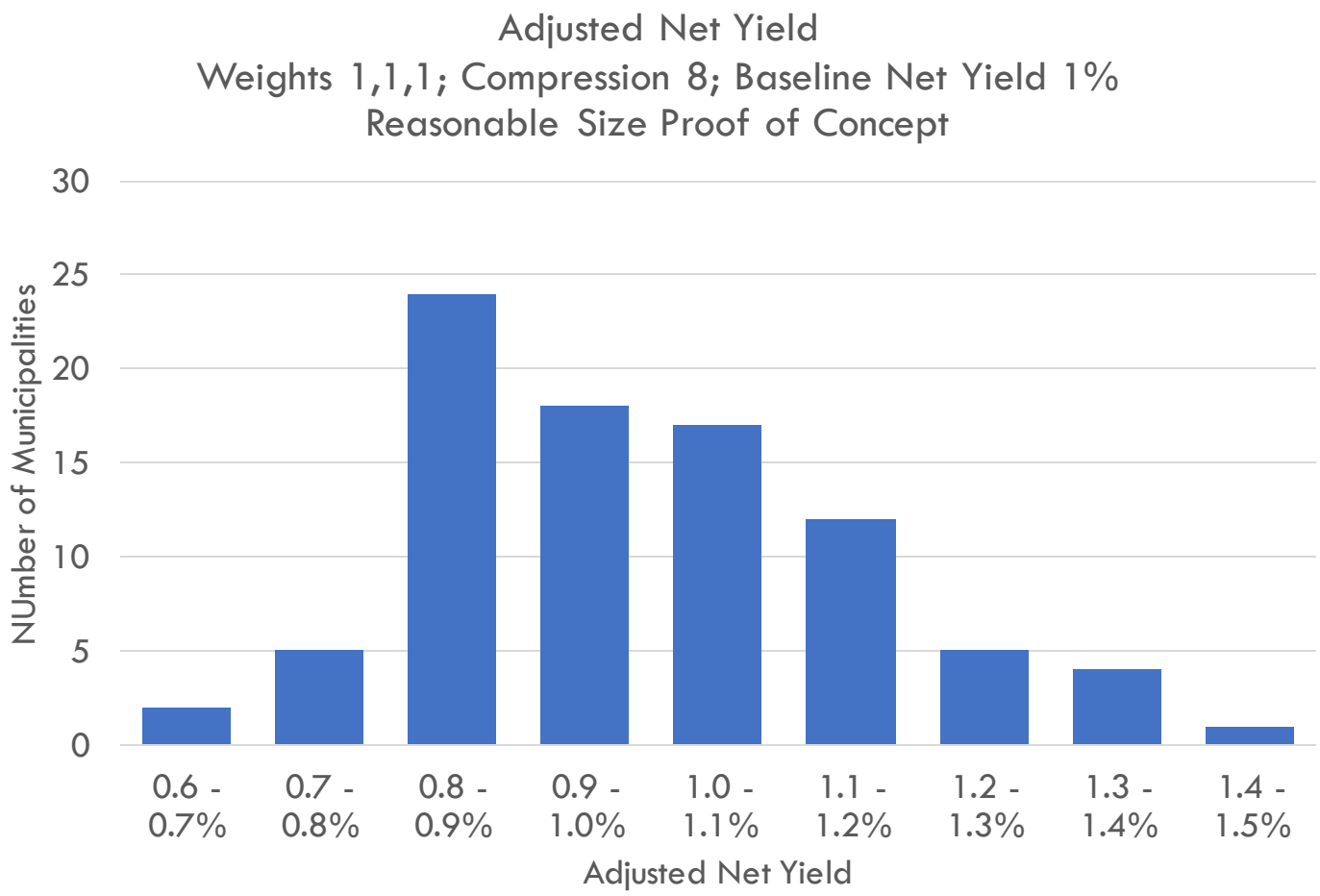




Adjusted Net Yield

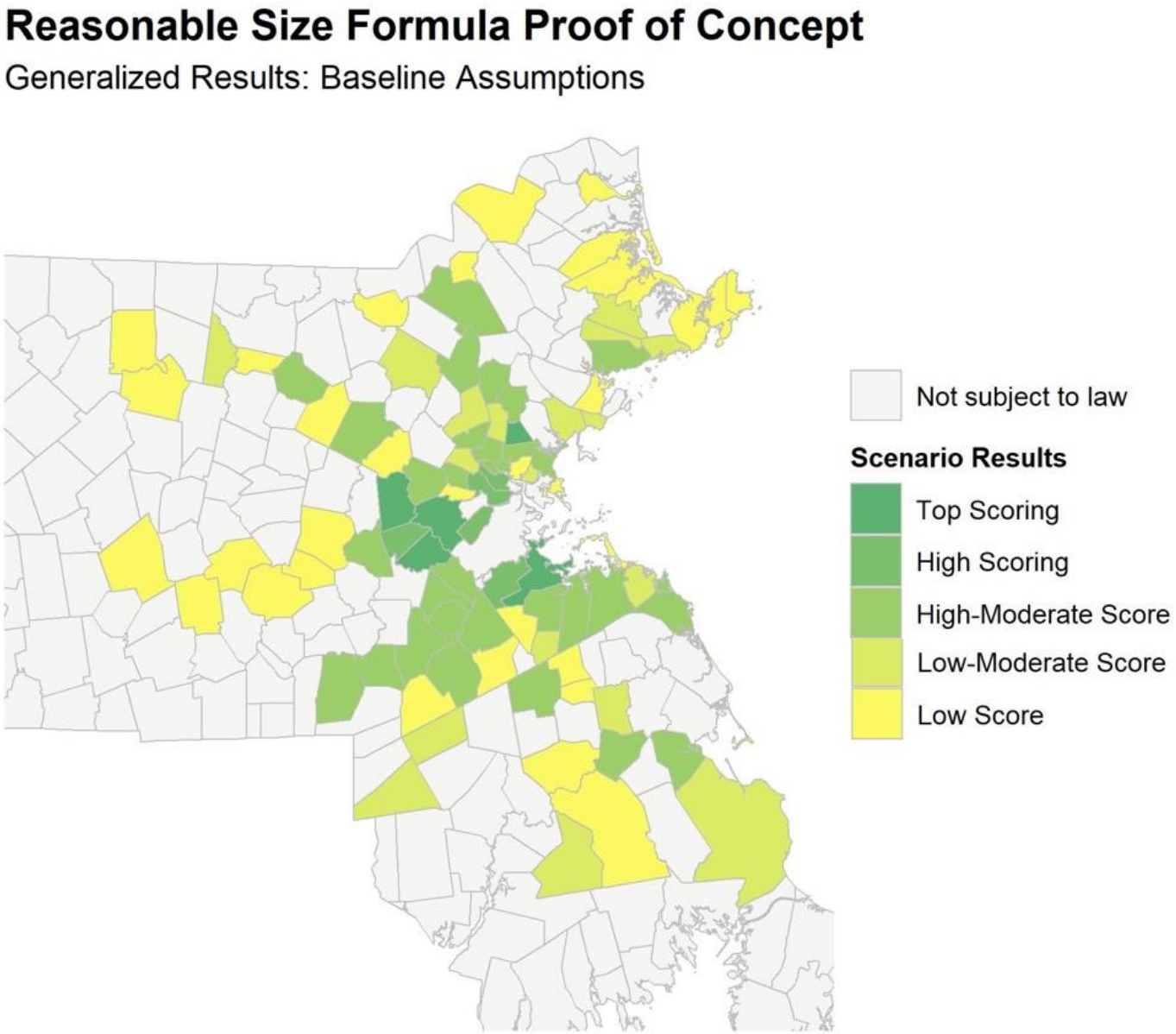
Assuming baseline net yield of 1%, equal weights, and compression factor of 8:

- Range: 0.62% to 1.46%
- Vast majority of municipalities between 0.8% and 1.2%.



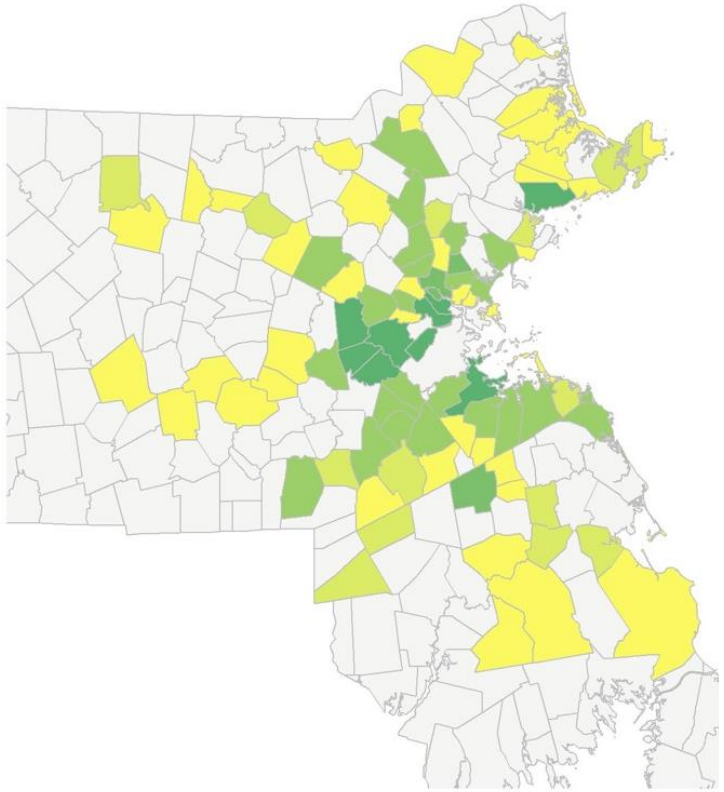
Adjusted Net Yield

- Top scores assigned to municipalities with multiple stations, good transit access, moderate to high housing exclusivity.
- Municipalities further out on commuter rail, with abundant multifamily, or limited station area score moderate or low.



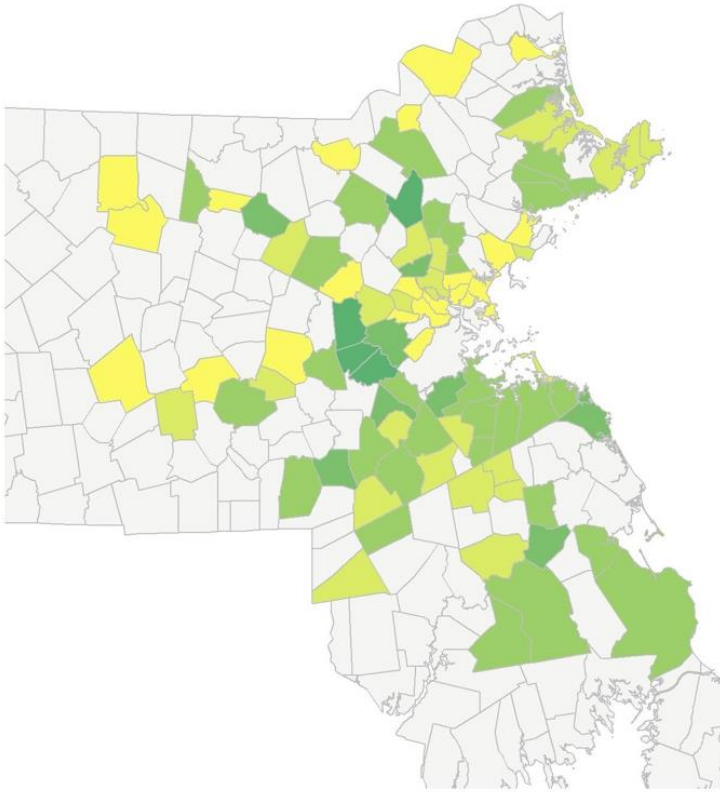
Weighting Effects

Generalized Results: Developable Area Weight 3x



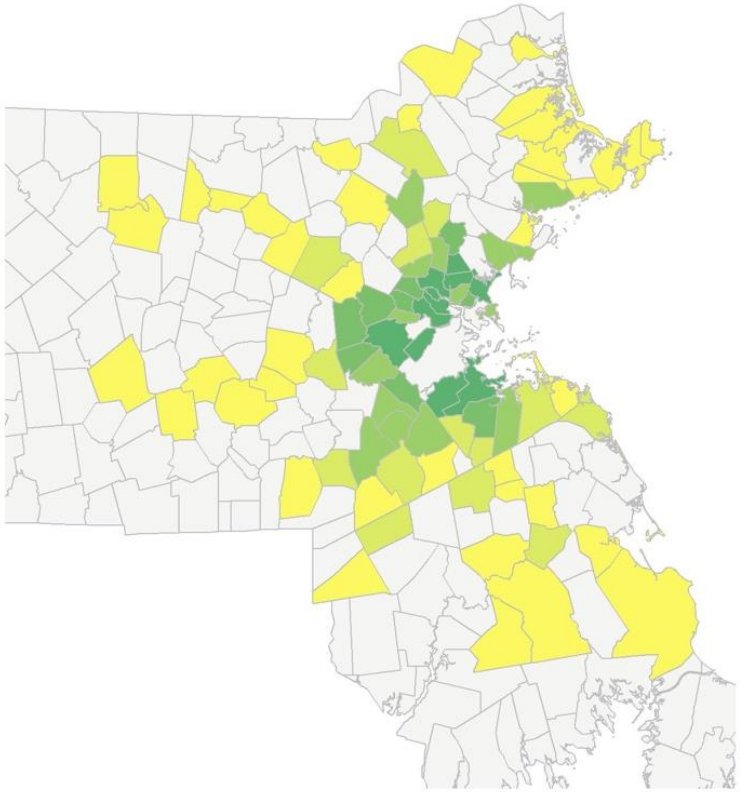
Land Area weighting produces higher targets in municipalities with multiple stops

Generalized Results: Housing Exclusion Weight 3x

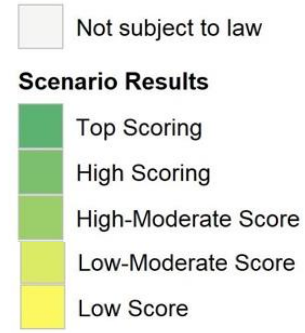


Housing Exclusion weighting produces higher targets in suburban communities

Generalized Results: Transit Access Weight 3x



Transit Access weighting produces higher targets in the Inner Core



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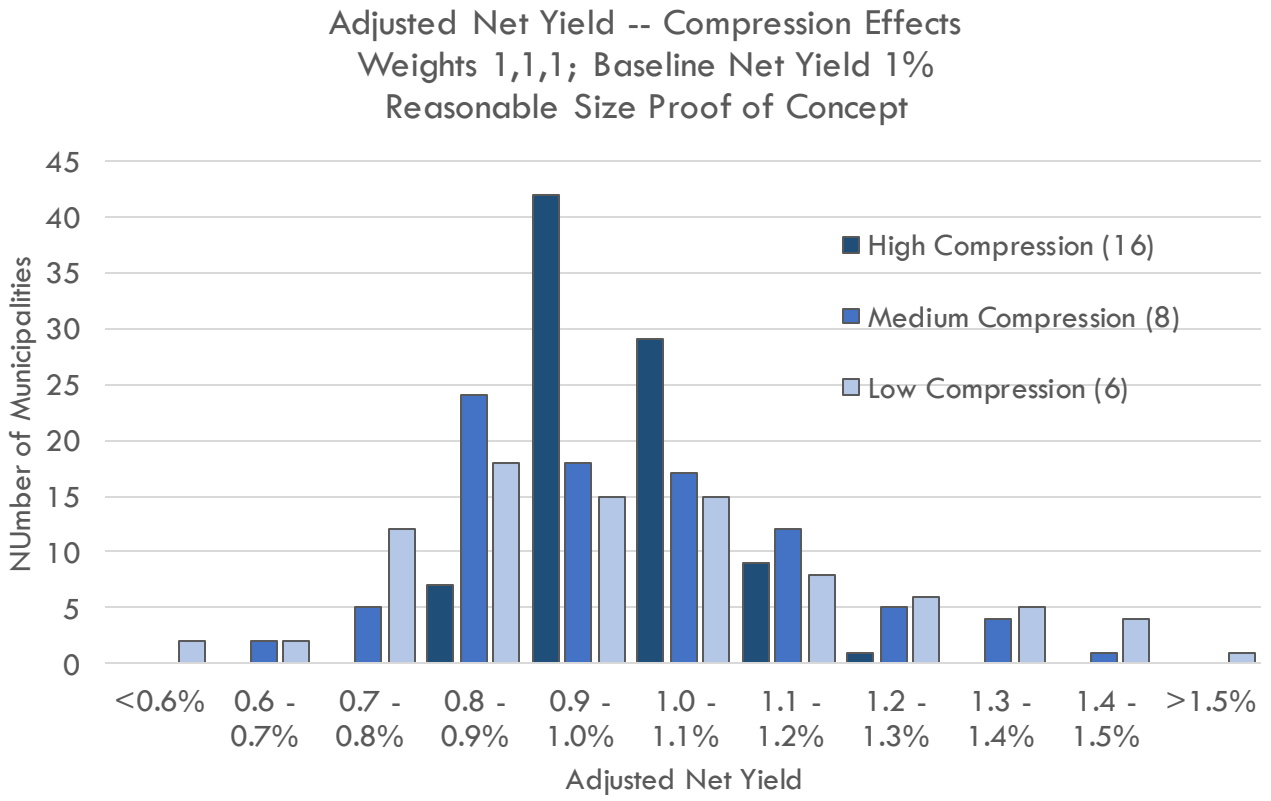
Compression Effects

- Compression factors control the ”spread” of net yield—the range between the highest and lowest score, and the clustering around a value of 1.0.
- Range of scores is a policy decision—how much should the requirements vary across municipalities more or less suitable for multifamily housing?



Observations

- The preliminary formula tested here effectively highlights those municipalities with the best opportunities for TOD and the largest obligations for creating multifamily housing, as well as those least suitable.
- The method accounts for local conditions and constraints, helping to avoid negative reaction to a one-size-fits-all approach.
- The simplicity of the results—a single net yield target—allows municipalities to be flexible with regard to district size, density, and location without having to be concerned about counting existing units or meeting acreage thresholds.
- Responsive to policy decisions about the weights of different factors and the range of net yield targets

It's so complicated! How will we ever explain it?

Keep it simple for municipal stakeholder communication:

- The guidelines have a *single, simple standard*: net new units allowed in multifamily districts. You don't have to worry about the acreage of your district or determine whether preexisting development would satisfy the requirements.
- The net yield formula is based on *three relevant factors*: land availability, transit access, and housing diversity. Communities with more land, better transit, and less multifamily housing will have to meet relatively higher requirements.
- Your community's target is based on information *specifically about your community*. You won't be lumped in with other cities and towns that may have more opportunities or obligations.
- The information and calculations behind the formula are *transparent and can be corrected or updated* over time as new information becomes available.

Incentivizing Affordable Housing

- Legislation is silent on affordability requirements; yet it is clear that economic integration will require construction of *mixed income* housing in exclusive communities.
- Use of inclusionary zoning could be incentivized by counting required affordable units as >1.0 units for purposes of net yield. More deeply affordable units could be weighted more heavily. For example:
  - 80% AMI units could count as 1.2 units toward net yield;
  - 50% AMI units would count as 1.5 units toward net yield;
  - etc
- Use of this incentive will require municipalities to be prescriptive about inclusionary requirements—can't be conditional on use of density bonuses, etc.

Tools and Resources

- Commonwealth has abundant data and tools available to enable fair, efficient, and transparent implementation of the mandate.
- Net yield formula can be implemented for entire MBTA district—no need for municipalities to calculate their own yield.
- Many tools available to test out development finance feasibility and net yield of proposed zoning.
- Transparency and verification will require municipalities to translate proposed zoning into standardized measures of density, and to provide district boundaries in electronic (GIS) format.
- Recently-adopted 40B General Land Area Minimum guidelines provide a good example of standardized compliance process.

Other Considerations

- Municipalities without an MBTA station need a net yield formula different from those with a station. Housing Exclusion as a single metric is one option.
- Location requirements for districts (entirely/partially within buffer or walkshed) not addressed by reasonable size formula and will require additional standards in the guidance.
- Minimum parking requirements create de facto limits on density. Since there is substantial evidence that abundant parking depresses transit ridership, the program guidelines should discourage or prohibit excessive parking in qualifying districts.
- Effects of wastewater disposal limitations in un-sewered areas needs to be considered (though alternative/innovative WW treatment methods could enable density even without sewer service.)

Conclusions

- Section 3A reasonable size requirements should focus on net yield of the proposed districts, with the goal of providing capacity for a specified share of of regional multifamily housing need.
- Implementation should be designed to advance objectives of Housing Choices, Global Warming Solutions Act, and racial justice considerations.
- This proof of concept demonstrates that a formula-based approach to net yield requirements is feasible using existing data and can effectively account for local constraints and opportunities.
- Zoning reform on the scale of Housing Choices is a rare occurrence in Massachusetts. We must make the most of this opportunity through an innovative and far-reaching set of guidance and compliance oversight.

Credits

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Why not use service type instead of accessibility?

- Service Type is a poor proxy for transit accessibility to jobs and destinations, and a poor predictor of VMT and GHG emissions.
- While all Subway municipalities have high accessibility, there is a very large range across Bus municipalities.
- Service type not as clear cut as it seems. How would communities be assigned? Could they dispute their classification and petition to be 'demoted'?