

**Article**

**Community Benefits Agreements with Transit  
Agencies: Neighborhood Change Along Boston's  
Rail Lines and a Legal Strategy  
for Addressing Gentrification**

Brian D. Feinstein\* and Ashley Allen†

Abstract .....	86
I. Introduction .....	86
II. Past as Prologue: Gentrification on the Red Line .....	88
Data .....	88
Subway Expansion and Demographic Change .....	89
Subway Expansion and Housing Costs .....	94
III. Looking Forward: The Green Line and CBAs .....	96
Overview of Community Benefits Agreements .....	97
Proposal for Green Line CBA .....	100
Using the CBA to Compel Construction of Affordable Housing .....	104

---

\* J.D. candidate, Harvard Law School; Ph.D., Harvard University, 2009; B.A., Brown University, 2004.

† J.D. candidate, Harvard Law School; B.A., Rice University, 2008.

The authors gratefully acknowledge Esme Caramello and David Grossman for helpful feedback and guidance throughout this process, and Matthew Kahn for sharing data that was used in an earlier version of this article.

The Constitutionality of Takings to Construct Affordable Housing .....	105
The Historical Use of Takings for Affordable Housing .....	107
IV. Conclusion .....	109
V. Appendix .....	110
Statistical Method .....	110
Defining the Treatment Regime .....	111
Achieving Balance on Key Covariates .....	111

ABSTRACT

Residents of Greater Boston located along the proposed Green Line rail extension have expressed concerns about potential gentrification and the resulting displacement of low-income residents. To assess these concerns, we examine the effects of the earlier Red Line extension on neighborhood demographics and housing costs. Based on our conclusion that gentrification occurred following the extension of the Red Line, we propose a Community Benefits Agreement (CBA) as a tool for mitigating these effects following expansion of the Green Line. We provide a short summary of CBAs in general and then outline the bargaining structure and major provision for our proposed CBA.

I. INTRODUCTION

In Fall 2009, the Massachusetts Department of Transportation released its proposal for extending the Massachusetts Bay Transportation Authority’s (“MBTA”) Green Line rail service into Somerville and Medford, Massachusetts.<sup>1</sup> The project promises improved mobility for residents and visitors to Cambridge, Somerville, and Medford, as well as better regional air quality due to decreased automobile use.<sup>2</sup> Yet some residents of these communities are concerned about the changes the transit line extension will bring.<sup>3</sup> In the spring of 2009, *Boston Globe* reporter Scott Helman interviewed residents of Somerville’s Union Square and the neighborhoods near Mystic Valley, areas that would be

---

1. See *Green Line Extension Project*, MASS. DEP’T OF TRANSP. (2009), [http://greenline.extension.eot.state.ma.us/documents/about/FactSheets/GreenLineFactSheet\\_F\\_lowRes.pdf](http://greenline.extension.eot.state.ma.us/documents/about/FactSheets/GreenLineFactSheet_F_lowRes.pdf) (summarizing a proposal involving an expansion of the Green Line northward to College Avenue in Medford and creating a branch to Union Square in Somerville; the project is scheduled for completion by the end of 2014 and will include seven new stations and approximately four miles of new subway service; the project will also require building a new facility for storage and maintenance of Green Line vehicles. Total costs are currently estimated at \$932.4 million).

2. *Id.*

3. Scott Helman, *Different Takes on Green Line’s New Tracks; Hope, Caution Precede Somerville, Medford Project*, BOSTON GLOBE, Apr. 13, 2009, at 1.

served by the proposed expansion.<sup>4</sup> Younger residents, many of whom had recently relocated from more expensive areas of Cambridge and Somerville, expressed optimism about the expansion and increased access to other areas in Boston.<sup>5</sup> More established residents, on the other hand, expressed concern about a loss of community identity and increased noise, and worried that gentrification would raise rent levels and cost of living.<sup>6</sup>

There has been considerable speculation that the Green Line expansion will lead to the displacement of long-term residents by more affluent newcomers. However, aside from two recent articles,<sup>7</sup> there is remarkably little research on the extent to which transit projects may lead to such gentrification, which we define, for purposes of this article, as the transition of a neighborhood's composition from relatively lower-income to relatively higher-income residents and businesses. The literature on the effects of transit expansion on neighborhood composition is similarly underdeveloped.

Since gentrification involves not just an increase in housing costs, but also a change in a neighborhood's demographic profile, this lack of research on whether transit projects lead to demographic changes represents a significant gap in the literature. In order for scholars to understand the effects of mass transit expansion on gentrification, additional work is needed concerning *both* changes to housing costs and neighborhood demographic changes. Similarly, if policymakers are to address the issue of gentrification, they must first have a better understanding of the actual effects that transit projects have on housing costs and neighborhood composition. Currently, because of this lack of research, policymakers must rely largely on anecdotal evidence and speculation when considering the impact of extending the Green Line on residents within the affected neighborhoods.

Section II provides an examination of demographic changes following the expansion of the Red Line during the 1980s. Based on these analyses, it is determined that significant gentrification, including the likely uprooting of established residents, occurred following the completion of this transit project. Section III introduces Community Benefits Agreements as a potential legal strategy to reduce the prospective similar harms following the future Green Line extension. This section includes descrip-

---

4. *Id.*

5. *Id.*

6. *Id.*

7. See Matthew Kahn, *Gentrification Trends in New Transit-Oriented Communities*, 35 REAL ESTATE ECON. 155 (2007); Daniel McMillen & John McDonald, *Reaction of House Prices to a New Rapid Transit Line: Chicago's Midway Line, 1983-1999*, 32 REAL ESTATE ECON. 463 (2004) (examining the impact of mass transit projects on property values and rental prices).

tions of community organizations' past uses of these agreements and explanations of how these agreements can be applied for use in major transit projects, in which one signatory is a public authority. Section IV contains a methodological appendix, providing an overview of the statistical method and research design used in the aforementioned analyses.

## II. PAST AS PROLOGUE: GENTRIFICATION ON THE RED LINE

This section seeks to determine whether neighborhoods along the planned Green Line expansion will undergo gentrification. In addressing this concern, demographic changes following the similar extension of the Red Line into Porter Square, Davis Square and the Alewife Brook Parkway areas approximately twenty-five years ago may prove instructive. Thus, a comparison follows of neighborhoods affected by the Red Line expansion with those that were not affected, based on a variety of demographic characteristics.

### *Data*

Data in this section were obtained from the Urban Institute's Neighborhood Change Database, which includes census tract-level data from the Census Bureau's American Housing Survey and from the 1970-2000 decennial Census (with some variables available only for 1980-2000).<sup>8</sup> Because the unit of the analysis in this dataset is the census tract (i.e., each datum is measured at the census tract level), the fact that the Census Bureau occasionally alters tract boundaries between surveys presents problems for any time-series geospatial analysis. Fortunately, the Urban Institute's Neighborhood Change Database places census data collected during the 1970-1990 period within the 2000 census tract lines. By using these normalized data, it is possible to compare census data across time within the exact same geographical borders.<sup>9</sup>

We divided the 1,282 census tracts in the Neighborhood Change Database into two groups: the 31 tracts located within a 1.4 mile radius of the Porter Square, Davis Square or Alewife subway stations (labeled "Red Line Expansion" in the graphs to follow) and the other 1,251 tracts (labeled "rest of Boston MSA"). Distances between census tracts and new Red Line stations were determined via the Census Bureau's "Ameri-

---

8. GEOLYTICS, INC., CENSUSCD NEIGHBORHOOD CHANGE DATABASE: 1970-2000 TRACT DATA. (CD-ROM, rel. 2002) (hereinafter GEOLYTICS CD-ROM).

9. See *Normalized Data Products*, GEOLYTICS, INC., <http://www.geolytics.com/USCensus/Normalized-Data/Categories.asp> (describing the Neighborhood Change Database in greater detail). In addition, the Neighborhood Change Database converts all dollar figures into 1999 dollars, which allows for more meaningful longitudinal analysis.

can FactFinder” website.<sup>10</sup>

*Subway Expansion and Demographic Change*

As a first-cut analysis, this article compares the areas along the Red Line extension with the rest of metro Boston in terms of the influx of new residents. Gentrification is understood to involve not only an influx of new residents, but also an influx of more affluent and, relatedly, better-educated residents. Thus, we examine residents’ education levels, mean income, and residents receiving public assistance. Disproportionate changes in these demographic variables in the Red Line-affected areas (compared to the rest of metro Boston) would provide at least suggestive evidence of gentrification. Sudden jumps in these factors between 1980 and 1990 (pre- and post-Red Line expansion) would further buttress this inference.

First, this article examines a fundamental component of gentrification: the percentage of new residents moving into a given area (where “new” residents are defined as individuals over the age of five who moved to their current county less than five years ago). Since the influx of new residents is a fundamental component of gentrification, examining whether there was a greater influx of new residents into the Red Line expansion areas is a natural place to start. As Figure 1 shows, the entire Boston metropolitan area saw an increase in new residents (as a proportion of the total population) between 1980 and 1990.<sup>11</sup> However, the areas benefiting from the Red Line extension saw a particularly large increase in new residents between 1980 and 1990 – over twice the size of the growth in new residents in the rest of metro Boston.<sup>12</sup> Moreover, this influx of new residents accelerated between 1990 and 2000, a decade when the proportion of new residents in the rest of the metro area stabilized.<sup>13</sup>

---

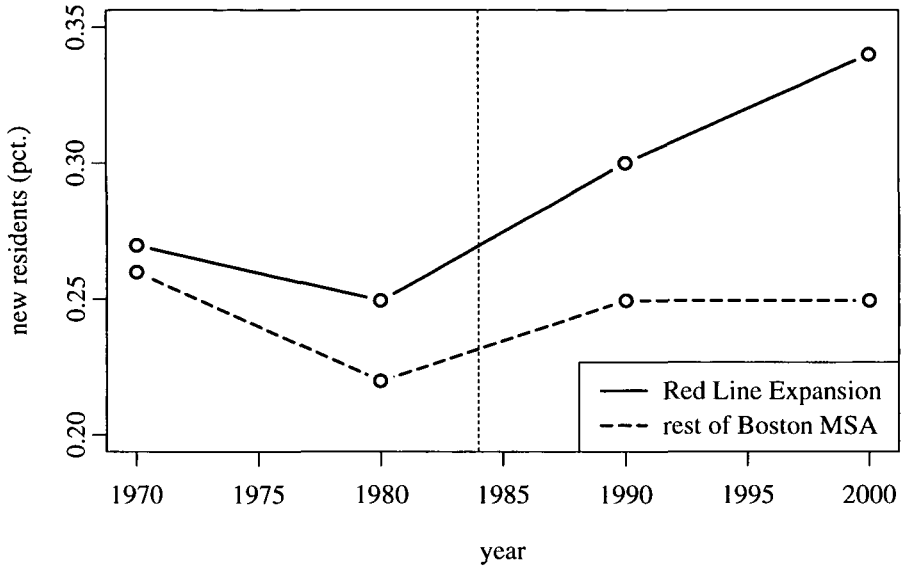
10. *American Factfinder*, U.S. CENSUS BUREAU, [http://factfinder.census.gov/home/saff/main.html?\\_lang=en](http://factfinder.census.gov/home/saff/main.html?_lang=en) (last visited Apr. 18, 2011).

11. See GEOLYTICS CD-ROM, *supra* note 8.

12. *Id.*

13. *Id.*

Figure 1: New Residents (%)

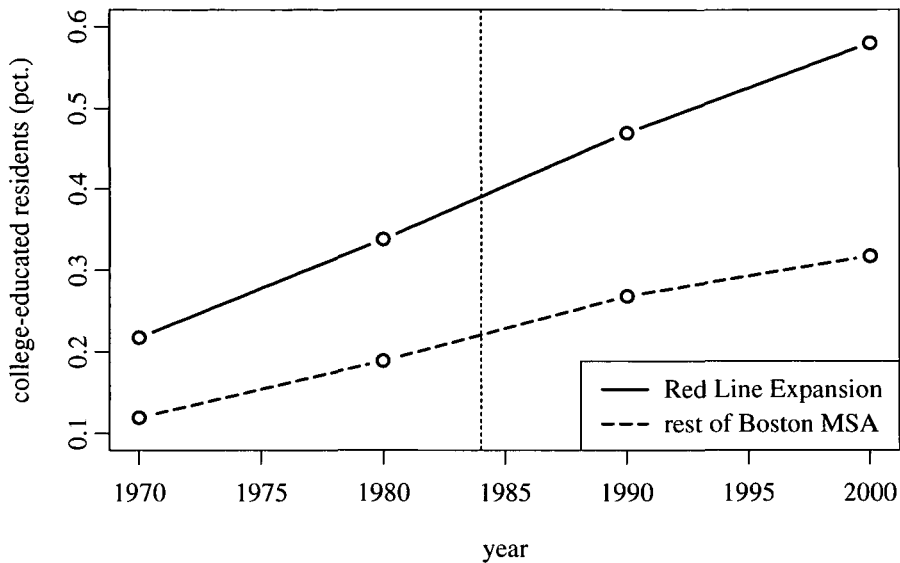


Second, this article compares residents' education levels between 1970 and 2000. Specifically, it compares the areas of Red Line expansion to the rest of metro Boston with respect to the proportion of residents over the age of twenty-five who hold a bachelor's and/or graduate or professional degree. Figure 2 shows that, while the proportion of residents with bachelor's degrees or higher increased across metro Boston during the period under study, the rate of increase appears somewhat higher in areas impacted by the extension of the Red Line.<sup>14</sup> The ten-year span with the greatest increase in education levels appears to be the 1980-1990 period in the Red Line-affected areas.<sup>15</sup>

14. *Id.*

15. *Id.*

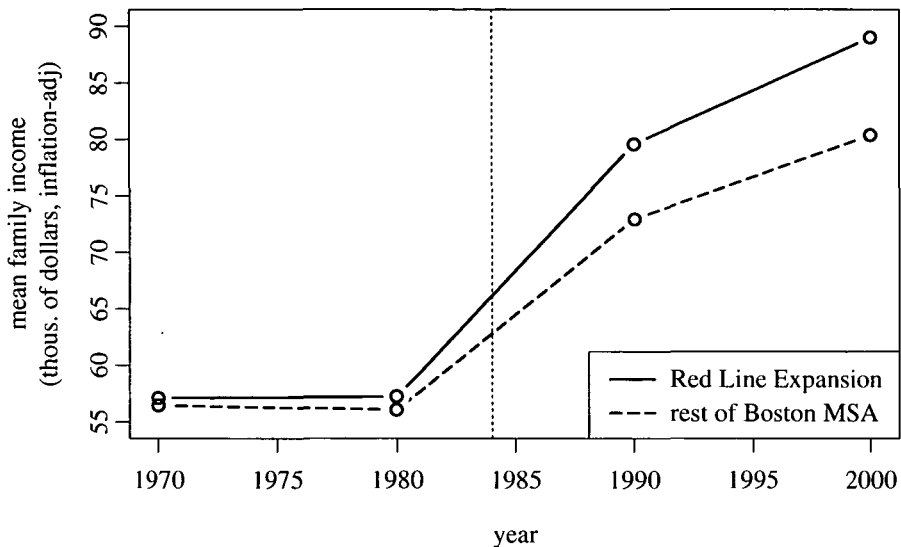
Figure 2: Residents with Higher Education (%)



Third, this article charts mean family income over the study period. As with a greater proportion of highly educated residents, a rapid increase in the average income in a neighborhood may be a sign that the neighborhood is gentrifying, with more affluent residents replacing less affluent ones. Figure 3 shows the inflation-adjusted mean family income in the two areas (in 1999 dollars).<sup>16</sup> This figure suggests that an increase in resident income occurred in the areas surrounding the Red Line extension. Mean family income in the two areas is approximately identical during the 1970s, and increases during the 1980s and 90s.<sup>17</sup> The increase in income is noticeably steeper in the Red Line-affected areas.<sup>18</sup> By 2000, those families residing in the Red Line areas earned approximately \$10,000 more than other metro Boston residents.<sup>19</sup> This income gap increased the most between 1980 and 1990.<sup>20</sup> During this decade, mean family income in the Red Line areas increased at a rate of 11.4 percentage points greater than outside of these areas.<sup>21</sup>

16. *Id.*17. *Id.*18. *Id.*19. *Id.*20. *Id.*21. *Id.*

Figure 3: Mean Family Income



Fourth, this article examines the proportion of households receiving some form of public assistance. Residents' mean income and receipt of public assistance may represent two sides of the same coin: a rise in mean income coupled with a decrease in the number of households receiving public assistance could indicate that poorer residents are being priced out of a gentrifying neighborhood. Information concerning public assistance may be useful in determining the extent of gentrification, because examining mean income alone may not capture changes in the highest and lowest parts of an area's income distribution. A finding of differential changes between the two areas in the proportion of residents receiving public assistance would further suggest that subway expansion leads to gentrification. Figure 4 provides this additional evidence.<sup>22</sup> As Figure 4 shows, while the proportion of households receiving public assistance decreased in both areas between 1980 and 1990, this decrease was much more substantial in the areas near the Red Line expansion.<sup>23</sup>

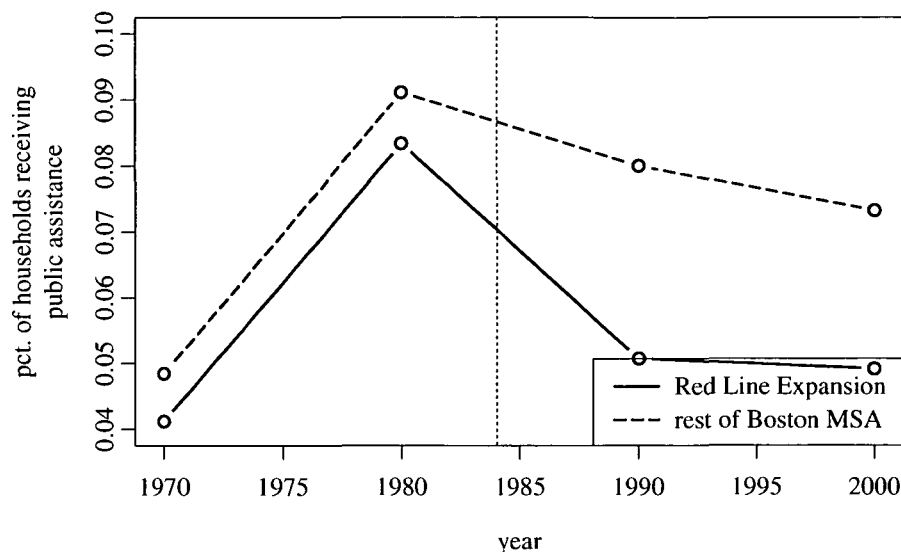
---

22. *Id.*

23. *Id.*



Figure 4: Households Receiving Public Assistance (%)



Figures 1-4 provide evidence that neighborhoods closest to newly opened Red Line subway stations changed markedly in the years around the expansion of the Red Line. Compared to the rest of the Boston metro area as a whole, these areas saw a greater influx of new residents, greater increase in education levels, greater increase in mean family income, and greater decrease in the households receiving some form of public assistance. Taken together, these four findings strongly suggest not only that the area around these new Red Line stations underwent gentrification around the time when these new stations opened, but also that this gentrification was more pronounced in these neighborhoods than elsewhere in metro Boston, where new stations did not open.<sup>24</sup>

24. Superficially, it may not seem obvious why increased education and income levels and decreased use of the social safety net are taken to be negative developments. After all, rather than less affluent people being pushed out by more affluent people during gentrification, the prospect that individuals are remaining in their neighborhoods but are *themselves* becoming more affluent is within the realm of possibility. While acknowledging that this alternative hypothesis lies within the realm of possibility, it is unlikely for two reasons. First, Figure 2 shows a larger-than-average influx of new residents into Red Line neighborhoods. See GEOLYTICS CD-ROM, *supra* note 8 and accompanying text. The fact that many new people are moving into these areas casts doubt on the alternative hypothesis that Figures 3-5 can be explained as showing that the fortunes of existing neighborhood residents are improving, as opposed to showing gentrification. See GEOLYTICS CD-ROM, *supra* note 8 and accompanying text. Second, given that Boston and surrounding areas have an integrated economy, it would seem odd for people in one area to have a similar income level as the rest of metro Boston in 1970, but for these same people to have incomes that are approximately 12.5% higher than those in the rest of metro Boston in 2000. See Figure 3; GEOLYTICS CD-ROM, *supra* note 8 and accompanying text. Thus,

*Subway Expansion and Housing Costs*

The preceding section demonstrated that the extension of the Red Line led to demographic changes in the affected neighborhoods, and argued that these demographic changes are typically associated with gentrification.<sup>25</sup> However, this demographic change is almost epiphenomenal: the likely reason why the demographic mix changed is because housing costs in the affected areas increased following the extension of the Red Line, compelling less affluent, longer-established residents in rental housing to move.

This section examines the impact of Red Line expansion on housing costs. More specifically, the following analysis tests the hypothesis that transportation improvements lead to gentrification by comparing average rents and housing prices in those areas that were affected by the 1984-1985 Red Line expansion<sup>26</sup> to otherwise similar areas that were not impacted. This analysis employs a statistical technique known as “genetic matching,” which pairs “treated” observations (i.e., areas impacted by the expansion of the Red), with “control” observations that are most similar to the treated group in every respect other than the fact that they are not situated on the Red Line expansion.<sup>27</sup> In this way, genetic matching creates a quasi-experimental research design, allowing for one to accurately estimate the average treatment effect. Unlike conventional regression analysis,<sup>28</sup> this ability to gauge the effect of “assignment” to the “treatment group” means that it is possible to make causal claims.

Using a matching algorithm to pair census tracts that are located nearby the Porter Square, Davis Square and Alewife Red Line stations

---

it seems much more likely that the results in Figures 2-5 can be traced to an influx of new, more affluent residents during a period of gentrification, as opposed to old residents remaining in the neighborhood and becoming wealthier. *See supra* note 8 and accompanying text. Still, it is important to acknowledge that the above analyses cannot distinguish between the gentrification hypothesis, which believe is more sensible, and this alternative hypothesis. (This inability to distinguish between these two hypotheses is rooted in what econometricians refer to as an ecological fallacy: the problems encountered when one attempts to make individual-level inferences from aggregate-level data.)

25. SIDNEY VERBA ET AL., VOICE AND EQUALITY CIVIC VOLUNTARISM IN AMERICAN POLITICS 455 (President and Fellows of Harvard College 4th ed. 2002); *see also* Kahn, *supra* note 7; McMillen & McDonald, *supra* note 7 (defining gentrification in terms of neighborhood income levels).

26. Paul Hirshon, *2 Stations Debut on Red Line*, BOSTON GLOBE, Dec. 9, 1984, at 29; Douglas S. Crockett, *T Puts Last Link in Red Line Extension*, BOSTON GLOBE, Mar. 31, 1985, at 34.

27. Alexis Diamond & Jasjeet S. Sekhon, *Genetic Matching for Estimating Causal Effects: A General Multivariate Matching Method for Achieving Balance in Observational Studies* (Nov. 14, 2010) (unpublished manuscript) (on file with author), available at <http://sekhon.berkeley.edu/papers/GenMatch.pdf>.

28. Alan O. Sykes, *An Introduction to Regression Analysis*, 64 U. CHI. L. REV. 405 (1997).

with similar census tracts located elsewhere in metro Boston,<sup>29</sup> it becomes possible to estimate the effect of a new subway station on the rate of change during the 1980-1990 period in mean monthly rent for rental units, housing prices for owner-occupied units, and mean family income for all residents.<sup>30</sup> The following table reports the estimated effect of Red Line expansion on these three outcome variables.

Table 1: Effects of the Red Line Expansion on Housing Costs & Neighborhood Economic Composition

<u>Outcome Variable</u>	<u>Difference in 1980-90 Rate of Growth for Census Tracts in the Treatment vs. Control Groups</u>	<u>Standard Error (p-value)</u>
Rate of Change in Avg. Rent	0.102	0.048 (0.033)
Rate of Change in the Aggregate Value of Owner-Occ. Homes	0.422	0.289 (0.144)

Table 1 indicates, first, that rents in those areas near the Red Line expansion increased at a 10.2% greater rate than did rents in similar areas of metro Boston.<sup>31</sup> This result is statistically significant at the conventionally accepted  $p < 0.05$  level.<sup>32</sup> Second, the table shows that the value of owner-occupied housing stock in those areas near the Red Line expansion *may* have increased at a 42.2% greater rate than did owner-occupied home prices in similar areas of metro Boston.<sup>33</sup> Although this estimate does not achieve conventionally accepted levels of statistical significance<sup>34</sup>, the estimate is suggestive of an increase in property values for owner-occupied homes near the Red Line expansion.

Overall, this analysis indicates that displacement of low-income residents likely occurred following expansion of the Red Line. While no individual finding is on its own determinative, when taken together, the

29. The two sets of census tracts are similar in terms a variety of demographic and geographic characteristics: i) distance to Boston's central business district; (ii) population density; the proportion of the census tract's residents who are (iii) Hispanic, (iv) African American, and (v) white; (vi) rental housing as a proportion of the tract's housing stock; (vii) owner-occupied housing as a proportion of the tract's housing stock; and (viii) municipality. Please see the appendix for more information. *See infra* p. 34.

30. *See infra* pp. 32-35.

31. GEOLYTICS CD-ROM, *supra* note 8.

32. GARY KING, UNIFYING POLITICAL METHODOLOGY, THE LIKELIHOOD OF STATISTICAL INTERFERENCE 34 (The University of Michigan Press 1998) (1989).

33. GEOLYTICS CD-ROM, *supra* note 8.

34. KING, *supra* note 32 at 34.

combined evidence showing demographic changes and increased housing costs suggests that lower-income residents were pushed out of the affected areas.

Communities' concerns about the potential effects of Green Line expansion therefore appear to be well-founded.<sup>35</sup> If gentrification in the wake of expansion depletes the affordable housing stock, renters—particularly low-income renters—are likely to be displaced from their neighborhoods. In addition, while existing homeowners are likely to benefit from increased price, long-term neighborhood residents looking to transition from renting to home ownership will find doing so more difficult.

### III. LOOKING FORWARD: THE GREEN LINE AND CBAs

In recent years, several low-income communities throughout the country have used Community Benefits Agreements (CBAs) as tools to ensure that development projects benefit local residents.<sup>36</sup> A CBA is a contract negotiated between community groups and a prospective developer, in which the developer agrees to provide particular community benefits related to the project in exchange for the community's support.<sup>37</sup> Unlike most CBAs, which involve agreements between community groups and private developers,<sup>38</sup> our proposed agreement would take the form of a contract between community groups and a government entity, the Massachusetts Bay Transportation Authority. Despite this departure from the typical formulation, we argue that subway expansion projects are particularly good candidates for implementing successful, legally enforceable CBAs. We suggest that the MBTA's use of eminent domain to expand rail lines and build new stations provides a unique "hook" for community groups, giving them bargaining power and thereby improving

---

35. Helman, *supra* note 3.

36. See, e.g., Patricia Salkin & Amy Lavine, *Negotiating for Social Justice and the Promise of Community Benefits Agreements: Case Studies of Current and Developing Agreements*, 17 J. AFFORDABLE HOUS. & CMTY. DEV. L. 113 (2008) (providing a survey and discussion of CBAs around the nation). Examples discussed include the CBAs relating to the Staples Center in Los Angeles, CA (1998), Gates Rubber Company in Denver, CO (2006), and Atlantic Yards complex in New York, NY (2005), among others. See also *Community Benefits Agreements*, *BLOGGER*, <http://communitybenefits.blogspot.com> (last visited Apr. 14, 2011).

37. Benjamin Beach, *Strategies and Lessons from the Los Angeles Community Benefits Experience*, 17 J. AFFORDABLE HOUS. & CMTY. DEV. L. 77, 97 (2008); Salkin & Lavine, *supra* note 36, at 114. As Julian Gross notes, however, "[v]arious players in the development process . . . have used the term CBA to mean different things in different contexts." Julian Gross, *Community Benefits Agreements: Definitions, Values, and Legal Enforceability*, 17 J. AFFORDABLE HOUS. & CMTY. DEV. L. 35, 37 (2008). Gross, for example, would limit the term to those agreements that are "legally binding." *Id.* While we limit the term to formal agreements, we leave open the possibility (explored below) that some such agreements may be found void for want of consideration.

38. Beach, *supra* note 37, at 97.

the chance for a meaningful agreement in which the community secures real gains.

This section begins with an outline of the general structure of CBAs and the legal issues that surround their creation and enforcement. A detailed exploration of how local community groups might use CBAs to combat displacement of low-income residents as a result of Green Line expansion follows.

### *Overview of Community Benefits Agreements*

The Staples Center CBA, created in Los Angeles in 2001, is widely considered the prototypical community benefits agreement.<sup>39</sup> Negotiations for this CBA surrounded the expansion of the Staples Center, a multi-purpose arena.<sup>40</sup> The proposed four million square foot mixed-use expansion encountered significant opposition from community groups concerned about the development's impact on surrounding low-income communities like the Figueroa Corridor.<sup>41</sup> Many community groups banded together to form a powerful coalition, and ultimately, coalition members and the developer signed a contract in which the developer agreed to modify the project to include a certain amount of open space and affordable housing, living-wage jobs, and local hiring programs.<sup>42</sup> In exchange, the community coalition delivered union support for the expansion, which expedited city council approval of the project.<sup>43</sup>

Today, the Staples Center agreement remains the model on which most CBAs are developed.<sup>44</sup> This success can explain the elements required for a CBA's successful negotiation. Like all contracts, a CBA is feasible only when all parties are willing to come to the bargaining table. Thus, in assessing whether a CBA is a valuable tool for securing community gains in a context like the Boston subway expansion, it is crucial to understand how each party stands to benefit from such an agreement. For community coalitions, the answer is fairly straightforward. Like the coalition organized around the Staples Center expansion, these groups typically seek assurances that the purported benefits of the proposed pro-

---

39. Patricia Salkin & Amy Lavine, *Understanding Community Benefits Agreements: Equitable Development, Social Justice and Other Considerations for Developers, Municipalities and Community Organizations*, 26 *UCLA J. ENVTL. L. & POL'Y* 291, 302 (2008). See also Beach, *supra* note 37, at 79; William Ho, *Community Benefits Agreements: An Evolution in Public Benefits Negotiations Processes*, 17 *J. AFFORDABLE HOUS. & CMTY. DEV. L.* 7, 20 (2008).

40. Tina Daunt, *Staples Center Rezoned to Further Builders' Grand Plan*, *L.A. TIMES*, Sept. 5, 2001, at 3. The proposed expansion included boutique hotels, a theater, an apartment complex, and retail space. *Id.*

41. Ho, *supra* note 39, at 20.

42. *Id.*

43. *Id.*

44. *Id.*

ject will reach local and, particularly, low-income residents.<sup>45</sup>

A CBA's potential benefit to developers is less tangible. As in the Staples Center CBA, a bargaining coalition of community groups often offers some form of support for the proposed project as its primary bargaining chip.<sup>46</sup> Where a project has overwhelming community and governmental support, a coalition's promise to protest the project if demands go unmet—or to deliver additional support if they *are* met—will likely have little sway with developers. It is unlikely that a CBA will be formed under such circumstances, and if one is, it is doubtful that developers will be adequately incentivized to offer substantial benefits to community coalitions.

Community groups are more likely to extract substantial gains from developers when their support for the project is instrumental to its success, as it was in the Staples Center case.<sup>47</sup> Patricia Salkin and Amy Lavine have identified several circumstances that contribute to greater bargaining power for community groups attempting to form CBAs.<sup>48</sup> They note that a developer's need to locate the project in a particular place or to obtain public subsidies can provide community groups with substantial leverage.<sup>49</sup> In addition, broad-based coalitions representing a large number of individuals and interests arguably will have more negotiating power than more narrowly-focused subgroups.<sup>50</sup> Moreover, where a developer's reputation is important to the success of the project, the prospect of opposition and public protest likely will be more motivating than in situations where reputation costs are low.

Such circumstances may not only make a developer's participation in a CBA more likely, they may also improve the chances that a court will regard the resulting CBA as legally enforceable.<sup>51</sup> A central question surrounding the enforceability of CBAs is whether they constitute valid contracts.<sup>52</sup> A valid bilateral contract requires consideration on both sides, and some scholars have questioned whether community coalitions provide any actual consideration in these agreements.<sup>53</sup> This issue has

---

45. See, e.g., Salkin & Lavine, *supra* note 39, at 294 (asserting that “[m]any CBA provisions are inspired by social justice concerns” and that common CBA provisions include “living-wage requirements, ‘first source’ (i.e. local) hiring and job training programs, minority hiring minimums, [and] guarantees that developments will include low-income and affordable housing”).

46. *Id.* at 293-94; see also Ho, *supra* note 39, at 21.

47. See, e.g., Salkin & Lavine, *supra* note 39, at 321 (arguing that a “fair and effective” CBA requires that the negotiating community have “adequate leverage to obtain meaningful promises from a developer”).

48. *Id.*

49. *Id.*

50. See *id.* at 322-23.

51. Salkin & Lavine, *supra* note 39, at 321-22.

52. *Id.* at 324-25.

53. *Id.* at 324.

not yet been tested in courts.<sup>54</sup> Nonetheless, it seems clear that the more significant a community group's support is to a project's success, the more likely it is that this support will be regarded as actual consideration. Community coalitions are thus best positioned to harness the potential power of CBAs when their support is highly valued, both because this encourages a private developer to actually negotiate with community groups and because it strengthens the coalition's legal claims under the resulting agreement.

Certain types of CBAs present the additional legal difficulty of which actors have standing to enforce them.<sup>55</sup> When community groups are included as signatories to a CBA, they are parties to the contract and hence have standing to enforce the agreement in court if necessary.<sup>56</sup> CBAs to which community groups are signatories are often referred to as "private CBAs."<sup>57</sup> Public CBAs, on the other hand, are agreements between developers and government entities such as redevelopment agencies.<sup>58</sup> Community groups play an important role in campaigning for these agreements, but they are not signatories to the final contract. Because only contract signatories have standing to enforce agreements, community groups cannot themselves seek a legal remedy if the agreement is violated.<sup>59</sup> Rather, they must rely on the government entity for enforcement.<sup>60</sup>

Redevelopment agencies and other government entities have limited budgets, numerous priorities, and arguably less direct incentive to pursue legal action in the case of breach.<sup>61</sup> It is thus in the interest of community groups to push for private CBAs wherever possible and to thereby keep enforcement power in their own hands.<sup>62</sup> However, precisely because private CBAs give community groups standing, private developers may insist on public CBAs with the idea that government entities will be less likely to pursue legal action in the event of a breach.<sup>63</sup> As a result, private CBAs—while preferable for community groups—may be more difficult to obtain.

---

54. *Id.*

55. *Id.* at 325.

56. Gross, *supra* note 37, at 46.

57. *Id.* at 45.

58. *Id.* at 47.

59. *Id.* at 47-48.

60. *Id.*

61. See generally PAUL E. PETERSON, CITY LIMITS (1981) (for the constraints affecting local government entities).

62. See, e.g., Gross, *supra* note 37, at 48 (stating that in light of enforcement issues, "a public CBA is clearly not as good a result for community-based organizations as a private CBA").

63. See *id.* (noting that "difficult political environments" may limit community groups' abilities to secure private CBAs).

*Proposal for Green Line CBA*

CBA's have the most potential for success when community groups can offer developers strong incentives to bargain, when both parties stand to benefit significantly from the agreement, and when community groups are parties to the resulting contract. In light of these considerations, we believe that a CBA between community groups and the MBTA would be a useful tool for mitigating resident displacement resulting from gentrification following the extension of the Green Line. In this proposed agreement, community groups would commit to not protesting the government's use of eminent domain to acquire property for subway expansion. In exchange, the MBTA would ensure that a certain portion of the property acquired via eminent domain would be devoted to the development of low-income housing units, among other measures.

One unusual feature of this proposed CBA is that, rather than an agreement between community groups and a private developer, this agreement would be between community groups and a government entity. However, there is nothing inherent in the structure of CBAs requiring that they be restricted to private development projects, provided that a government entity, like the MBTA, can be adequately incentivized to bargain with community groups. Before turning to the question of bargaining power, we note that while our proposed agreement includes the MBTA as a party, it is not thereby a "public CBA" in the sense described above. Under this proposal, the MBTA takes the place of the private developer and community groups function as the other signatories to the agreement.<sup>64</sup> Provided that community groups are able to secure their place as signatories, the problems of standing that arise in relation to public CBAs would not apply in this context, since the community groups, as signatories, would have standing to enforce the agreement against the MBTA if necessary.

The crucial question for this proposal is whether community groups have sufficient bargaining power to negotiate with the MBTA. A community group's support need not be absolutely essential to a project's success in order to provide the other side with an incentive to negotiate. In the past, CBAs have been successfully formed when a community coalition has the power to decrease the project's expense or minimize delays to its completion, or even simply to secure a sense of community approval for a project that would benefit from such an endorsement.<sup>65</sup> With re-

---

64. As noted previously, community groups seeking private CBAs often encounter resistance from developers who would favor public CBAs. However, this preference may be less strong for the MBTA, since the MBTA is itself somewhat politically responsive and therefore more likely than a private developer to weigh the concerns of community groups.

65. *See, e.g.*, Ho, *supra* note 39, at 21 (noting that developers of the Staples Center expansion were motivated to cooperate with community groups by a desire to secure a permit for the



gard to the Green Line extension, community groups have a unique source of bargaining power: to acquire the land for expansion, the MBTA will sometimes need to invoke the government's highly unpopular ability to acquire private land by eminent domain.<sup>66</sup> During this often controversial process, community groups have discretion over whether to protest the takings or remain silent, and this ability to use the political and judicial processes to delay or block takings may give community groups leverage at the bargaining table.

The acquisition of land via eminent domain for public transit can be costly, which gives community groups a valuable card in the bargaining game: the ability to offer not to protest takings, thereby expediting the takings process for the MBTA. On several occasions, the MBTA's use of eminent domain has proven substantially more expensive than predicted.<sup>67</sup> As part of the Greenbush commuter rail project connecting the South Shore to Boston, the MBTA acquired twenty-six square feet of land from the Glastonbury Abbey, a monastery.<sup>68</sup> The MBTA initially spent \$1,700 to acquire the land, but subsequently spent \$123,000 on sound mitigation devices in an effort to soothe relations with the monastery's residents, who complained that the noise of the nearby railway disturbed its quiet environment.<sup>69</sup> Unsatisfied, the abbey brought suit against the MBTA, forcing the agency to incur substantial litigation costs.<sup>70</sup> Local opposition to the Greenbush railway was widespread, and the MBTA "spen[t] millions . . . in mitigation for several South Shore towns and property owners," which sent the total cost of the line soaring.<sup>71</sup> Courts ordered the MBTA to pay \$820,000 for a commercial property that it initially purchased for \$270,000, and to pay \$700,000 for another parcel that it initially acquired for \$350,000.<sup>72</sup> When the MBTA acquired a gravel company by eminent domain during expansion of the

---

project before the next city election, which was likely to produce a mayor and council less sympathetic to the expansion efforts); *Id.* at 22 (noting that community groups secured gains from the developer of Denver's Gates Rubber factory when the developer needed community support for a rezoning of the site); Salkin & Levine, *supra* note 36, at 119 (suggesting that by agreeing to various community benefits, the developer of a mixed-use development in North Hollywood, California secured an additional \$13 million in subsidies).

66. See Eric Moskowitz, *Long-Awaited Green Line Extension to Somerville, Medford Delayed Again*, BOSTON GLOBE, July 11, 2010, at B2 (noting the need for the MBTA to utilize eminent domain takings during the Green Line extension).

67. See, e.g., Matt Carroll, *Tiny Sliver of Land puts Abbey, MBTA at odds*, BOSTON GLOBE, Mar. 18, 2007; Rick Collins, *Braintree Property Owner Wins Suit Against T*, PATRIOT LEDGER, Mar. 18, 2005; Christine Walsh, *Kingston/MBTA must pay extra \$3M for rail station site*, PATRIOT LEDGER, Feb. 17, 2000.

68. See Carroll, *supra* note 67.

69. *Id.*

70. *Id.*

71. *Id.*

72. Collins, *supra* note 67.

Wilmington line, a jury awarded an additional \$3 million in compensation over the MBTA's initial \$2.95 million payment.<sup>73</sup>

Opposition to the use of eminent domain can have a profound impact on a project's budget and timeline. While compensating the owners of taken property is an expected expense, the actual *cost* of compensation and related litigation is dependent on the level of resistance that the MBTA encounters. This resistance and its associated costs are likely to be particularly high with respect to the Green Line expansion, given its urban location and the fact that MBTA has explicitly considered taking property by eminent domain.<sup>74</sup> To the extent that community groups have the ability to affect the level of public resistance in response to takings, this degree of power over the process may give the MBTA good reason to consider bargaining with these groups.

Community groups may influence the impact of eminent domain in a variety of ways. Most straightforwardly, they can engage in campaigns and protests of the MBTA's use of eminent domain. When public opposition is high, property owners may feel more emboldened to pursue individual claims against the MBTA, which would likely increase overall costs. Community groups can also engage in legal action by filing *amicus* briefs in support of individual claims, as community groups did in *Kelo v. City of New London*.<sup>75</sup> These groups may also have the power to influence the posture that unions and other local organizations take towards the project, as in the negotiations surrounding the Staples Center CBA.<sup>76</sup> Insofar as the MBTA believes that these efforts have some impact, a community group's agreement to suspend protests and encourage the support of other groups in exchange for community benefits may provide a powerful inducement.

For private developers, community support is arguably valuable only to the extent that it contributes to the success of a project. For politically responsive bodies like the MBTA, however, community support may have additional value over and above its ability to influence a project's success. A community's support for a project confers a greater sense of legitimacy on both the agency and the project itself. Thus, for organizations subject to political accountability, the support of community groups

---

73. Walsh, *supra* note 67.

74. In February 2009, Massachusetts Director of Transit Planning Steve Woelfel informed residents of a neighborhood slated for Green Line expansion that the project could require taking property by eminent domain. Megan Woolhouse, *State Backs Green Line Extension into Medford*, BOSTON GLOBE, Feb. 4, 2009, at B3.

75. See Brief of Amici Curiae New London Landmarks, Inc. et al. in Support of Petitioners on the Merits, *Kelo v. City of New London*, 545 U.S. 469 (2005) (No. 04-108), 2004 WL 2812099.

76. See Ho, *supra* note 39, at 21 (discussing a Los Angeles community group's role in persuading the L.A. County Labor Federation to support the Staples Center expansion in exchange for various assurances).

may function as a powerful incentive, even when this support is not central to the project's success.

Moreover, because the MBTA is a publicly accountable body, community groups can exercise influence over it through a number of political channels. For instance, in exchange for community benefits, groups may agree to lobby a zoning board in support of a zoning variance necessary to the project. They may also, as in the Staples Center case, agree to deliver the support that the MBTA board may believe it needs to approve a development project.<sup>77</sup>

In the specific context of an agreement with the MBTA, the opportunity for political influence is more pronounced. Because state and local governments exercise significant control over the MBTA's budget,<sup>78</sup> community groups may gain significant ground by lobbying these political bodies directly. State and local government funding, which allows the perennially cash-strapped MBTA to balance its budget, arguably may be an important way in which political institutions can influence MBTA decision-making. State and local governments' financial support of the MBTA is substantial. For instance, the Massachusetts Transportation Improvement Loan Act of 2008 allocated \$700 million to the MBTA to fund the Green Line expansion.<sup>79</sup> In addition, the MBTA receives approximately 10.2% of its total funding from municipalities within the transit authority's service area.<sup>80</sup> Although it is not clear under what circumstances, if any, municipalities can withhold funding from the MBTA, the fact that the MBTA is to some extent dependent on municipalities for its funding may give municipalities some power over the authority's decisions. Furthermore, Massachusetts currently allocates 20% of its state sales tax revenue to support the MBTA.<sup>81</sup> In 2010, this state support amounted to 53.7% of the MBTA's total funding.<sup>82</sup> In light of these significant outlays, it is likely that state and municipal elected officials have some fiscal, and therefore political, leverage over the MBTA's decision-making process. In addition, the MBTA's seven board members are all appointed by the governor and hence likely are subject to political pressure.<sup>83</sup> Since significant pressure from community groups is likely to in-

---

77. *See id.*

78. *See* Transportation Improvement Loan Act, ch. 86, § 24, 2008 Mass. Legis. Serv. (West), available at <http://www.malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter86>; Brian Kane, *Born Broke: How the MBTA Found Itself With Too Much Debt, the Corrosive Effects of This Debt, and a Comparison of the T's Deficit to Its Peers*, MBTA ADVISORY Bd., 4 (Apr. 2009), available at [http://www.mbta.com/uploadedfiles/Documents/Financials/Born\\_Broke.pdf](http://www.mbta.com/uploadedfiles/Documents/Financials/Born_Broke.pdf).

79. Transportation Improvement Loan Act, ch. 86, § 2D, 2008 Mass. Legis. Serv. (West).

80. Kane, *supra* note 78, at 4.

81. *Id.*

82. *Id.* at 4-5.

83. *Id.* at 11.

fluence political entities responsive to their constituencies, assurances that these groups will support the MBTA's plans may improve the probability that the Green Line expansion will be successful.<sup>84</sup>

Given the controversial nature of eminent domain takings, the numerous political mechanisms through which community groups can influence the MBTA, and the significant concerns about resident displacement, the Green Line extension project is well suited to the formation of a CBA. Community groups have the opportunity to amass significant bargaining power both by direct action favoring or opposing the expansion, and by interfacing with political bodies in support of or in opposition to the proposed project. Ensuring community support may thus constitute a considerable gain for the MBTA and hence motivate the authority to secure this support by agreeing to community groups' terms. Such an agreement would provide substantial benefits to both parties, making it likely that courts will uphold the agreement based on a finding of mutual consideration.

#### *Using the CBA to Compel Construction of Affordable Housing*

Having demonstrated that the extension of the Red Line led to gentrification and argued that a community benefits agreement could be a useful tool for mitigating the negative effects of similar gentrification in the context of the Green Line expansion, we now turn to specific sections of the proposed CBA.

The CBA proposed in this article is focused primarily on enabling lower-income residents to remain in their neighborhoods in the years following the opening of the Green Line extension. The natural inference from our analysis of the Red Line extension is that less affluent residents were displaced following the opening of the extension. Specifically, the findings that Red Line-affected areas had a large influx of newcomers (relative to the average census tract in the rest of metro Boston), and that average rents and owner-occupied home prices increased (relative to otherwise similar census tracts in the rest of metro Boston), lead us to conclude that resident displacement is likely to be a major issue following the

---

84. Community groups in areas slated for Green Line expansion also have a more direct method for influencing the political process. Massachusetts' Executive Office for Transportation and Public Works has created an advisory committee to develop recommendations regarding the expansion project. This committee includes thirteen members representing mayoral offices and city councils and seven members of community organizations, including the Welcome Project (a Somerville-based advocacy organization focused on issues related to new immigrants); the Somerville Transportation Equity Partnership; and Conversation Law Foundation (an environmental advocacy group). See MASS. EXEC. OFFICE OF TRANSP., *Green Line Extension, Beyond Lechmere Public Involvement Summary and Advisory Group Members*, available at <http://www.greenlineextension.org/documents/beyondLechmere/BeyondLechmereSummary.pdf> (last visited Apr. 21, 2011).

extension of the Green Line.<sup>85</sup> Therefore, any agreement between community groups and the MBTA ought to emphasize mitigating displacement of existing residents.

We argue that the most effective way to use CBAs to protect existing neighborhood residents during post-Green Line gentrification is to include a provision requiring the MBTA to use its eminent domain powers to transfer land to a public housing authority or private developer to construct affordable housing. Since expansion of the Green Line will already involve significant takings,<sup>86</sup> in some cases it may be possible to locate new affordable housing adjacent to rail facilities, without additional use of eminent domain. For instance, if a building must be taken via eminent domain so that half of the site may be used for Green Line purposes, it may be possible to build housing on the other half of the building's former footprint without added acquisitions costs to the MBTA or hardships to property owners. Even when additional takings are needed, however, we believe that the opportunity to mitigate the negative effects of gentrification by providing more affordable housing far offsets the costs associated with greater use of eminent domain.

Two concerns may be raised in response to this provision requiring the MBTA to use its eminent domain powers to transfer property to other entities to construct affordable housing. First, one may question whether the construction of housing units serves a "public" purpose. Second, given the history of eminent domain in urban areas, one might be skeptical of the claim that the practice could be used to directly benefit lower-income residents; both concerns are unwarranted.

### *The Constitutionality of Takings to Construct Affordable Housing*

Despite the fact that housing units are in a sense inherently private (in that their use is restricted to current occupants), the construction of affordable housing arguably meets both the narrower and more expansive definitions of "public use" that the Supreme Court has employed in its Takings Clause jurisprudence.<sup>87</sup> According to Matthew Parlow, under the Court's broad view of "public use," any taking of private property for public purposes is acceptable, "even if the public cannot actively access or

---

85. See Helman, *supra* note 3.

86. Despite the fact that most of the line will be sited along the former Lowell commuter rail tracks, eminent domain will likely be necessary for widening these tracts, building stations and a maintenance yard, and constructing a spur to Union Square. See Rob Barry, *Medford Still Split on the Merits of a Green Line Extension*, SOMERVILLE JOURNAL (Jan. 29, 2008), <http://www.wickedlocal.com/somerville/news/business/x1059369091>.

87. Parlow, *Unintended Consequences: Eminent Domain and Affordable Housing*, 46 SANTA CLARA L. REV. 841, 850-53 (2006).

use the property.”<sup>88</sup> This principle was affirmed in *Hawaii Housing Authority v. Midkiff*, in which the Court upheld a statute that authorized the eminent domain taking of property from a landowning oligopoly and transferring it to the property’s former long-term lessees.<sup>89</sup> Under this broad view, the court adopts a rational basis test for whether a given taking serves the public – a standard that grants governments wide latitude in their use of eminent domain.<sup>90</sup>

By contrast, under the narrow view of “public use,” the government’s eminent domain powers are limited to those cases where the public has direct access to the property.<sup>91</sup> At first glance, it may seem that affordable housing does not meet this narrow definition. Unlike, for instance, the post office in the seminal eminent domain case *Kohl v. United States*,<sup>92</sup> multiple members of the general public cannot simultaneously use a given apartment. This interpretation of the narrow view is misguided, however. According to Parlow, the narrow view of “public purpose” is properly understood as meaning that members of the public can use the premises if they meet certain objective criteria.<sup>93</sup> For example, despite the fact that public schools and hospitals are not open to every member of the public, these buildings satisfy the narrow definition of “public purpose” because individuals meeting specific criteria (e.g., school age children living in the municipality, persons needing medical care at a hospital with unused beds) can access it.<sup>94</sup> Therefore, the use of eminent domain to construct these buildings is constitutionally permissible under the narrow view.<sup>95</sup> In light of this standard, affordable housing units that are allocated to tenants on a set of need-based criteria arguably serve a sufficiently “public” objective to pass constitutional muster even under the narrow view.

---

88. *Id.*

89. *Haw. Hous. Auth. v. Midkiff*, 467 U.S. 229, 245 (1984). *See also* *Kelo v. City of New London Conn.*, 545 U.S. 469, 483 (2005) (holding that New London could use eminent domain to transfer a project to a development agency); *Berman v. Parker*, 348 U.S. 26, 35-36 (1954) (permitting Washington, D.C., to condemn a department store as part of a redevelopment plan).

90. *See Kelo*, 545 U.S. at 477-478 (stating that the Takings Clause of the Constitution requires that takings for the purpose of economic development satisfy a public use requirement); *Midkiff*, 467 U.S. at 242-43 (asserting that if “the legislature’s purpose is legitimate and its means are not irrational, . . . debates over the wisdom of takings . . . are not to be carried out in the federal courts”); Abraham Bell, *Private Takings*, 76 U. CHI. L. REV. 517, 520 (2009) (noting that the broad definitions of public use adopted in *Midkiff*, *Kelo*, and other cases represents an “effective evisceration of the constitutional requirement that takings be made for a ‘public use.’”).

91. Parlow, *supra* note 87, at 846.

92. *Kohl v. United States*, 91 U.S. 367, 367, 373-74 (1876).

93. *See Pac. R.R. Co. v. Neb.*, 164 U.S. 403, 414-16 (1896); *Kohl*, 91 U.S. at 371, 373-74; Parlow, *supra* note 87, at 851-52 (summarizing the narrow view of public purpose).

94. Parlow, *supra* note 87, at 851-52.

95. *Id.*

Furthermore, state courts in Massachusetts and elsewhere have held that the use of eminent domain for the purpose of constructing affordable housing is constitutionally permissible.<sup>96</sup> Massachusetts requires a showing that the area is “sub-standard” in order to use eminent domain to build new units of affordable housing.<sup>97</sup> Massachusetts courts are silent as to whether this means that *every* building in an entire area must be substandard, or – as in other jurisdictions<sup>98</sup> – that at least *some* buildings must be substandard in order to classify the area as blighted and use eminent domain to acquire all buildings in the areas, including buildings not classified as substandard. If Massachusetts courts are willing to clarify that the latter standard applies (in keeping with the Supreme Court’s position in *Kelo*), this clarification would provide a firm assurance that such a claim in a CBA would pass constitutional muster.

### *The Historical Use of Takings for Affordable Housing*

Addressing the second concern, skepticism regarding the use of eminent domain to help lower-income individuals, there is some history of using eminent domain to improve the quality of life for residents of lower-income areas. Before delving into this history, it is important to acknowledge that skepticism in this context is justified. After all, there is a long history of the government using eminent domain to place property in the hands of wealthy interests at the expense of less affluent residents.<sup>99</sup> In recent years, debates over eminent domain have been framed largely in the context of *Kelo*,<sup>100</sup> potentially reinforcing the notion that takings via eminent domain must come at the expense of lower-income residents.<sup>101</sup>

---

96. See *Allydonn Realty Corp. v. Holyoke Hous. Auth.*, 23 N.E.2d 665, 666, 670 (Mass. 1939); *Thomas v. Hous. & Redevelopment Auth.*, 48 N.W.2d 175, 178 (Minn. 1951); *Ferch v. Hous. Auth.*, 59 N.W.2d 849, 853, 871 (N.D. 1953); *Blakemore v. Cincinnati Metro. Hous. Auth.*, 57 N.E.2d 397, 405 (Ohio Ct. App. 1943); *Dornan v. Phila. Hous. Auth.*, 200 A. 834, 837 (Pa. 1938).

97. *Allydonn Realty Corp.*, 23 N.E.2d at 666.

98. Cf. *Kelo v. City of New London Conn.*, 545 U.S. 469, 469 (2005); *Foeller v. Hous. Auth.*, 256 P.2d 752, 756-57, 783 (Or. 1953).

99. See *Poletown Neighborhood Council v. Detroit*, 304 N.W.2d 455, 457, 460 (Mich. 1981) (holding that Detroit could take a 465-acre working-class neighborhood to construct a General Motors plant), *overruled by* *Cnty. of Wayne v. Hathcock*, 684 N.W.2d 765, 787 (Mich. 2004); Parlow, *supra* note 87, at 843-46 (discussing Los Angeles’ taking of the 300-acre, impoverished Chavez Ravine neighborhood to construct Dodger Stadium).

100. For an overview of the upsurge in popular, legislative, and scholarly interest in eminent domain following *Kelo*, see, e.g., Ilya Somin, *The Limits of Backlash: Assessing the Political Response to Kelo*, 93 MINN. L. REV. 2100, 2107-53 (2009); Alberto Lopez, *Revisiting Kelo and Eminent Domain’s “Summer of Scrutiny,”* 59 ALA. L. REV. 561, 590-94 (2008).

101. See Transcript of Oral Argument at 50, *Kelo v. City of New London Conn.*, 545 U.S. 469 (No. 04-108) (2005), 2005 WL 529436 (rebuttal argument by Scott G. Bullock on behalf of petitioners) (arguing that “the one thing that all poor neighborhoods share in common is that they

This focus, however, ignores the possibility that the government can use eminent domain to directly help the types of people that *Kelo* forced out of their homes. Most prominently, federal public housing programs during the Second New Deal deliberately placed eminent domain as one tool in housing authorities' toolkit.<sup>102</sup> When the courts found that the federal government could not use eminent domain to construct public housing,<sup>103</sup> Congress responded by passing the Wagner-Steagall Housing Act of 1937.<sup>104</sup> Under the Act, local housing authorities were given responsibility for constructing public housing.<sup>105</sup> Because some state courts held that public housing construction is a public purpose, this transfer of responsibility allowed for the construction of public housing using eminent domain (bypassing the federal appellate court's ban on the federal government using eminent domain to build public housing).<sup>106</sup> While there is much debate over whether slum clearance programs provide a net detriment to the very groups that the programs were supposed to benefit,<sup>107</sup> one may presume that at least *some* nontrivial number of uses of eminent domain to construct public housing benefitted the poor.

For these reasons, we believe that a CBA provision requiring the MBTA to use its eminent domain powers to set aside a parcel of land of affordable housing, as part of the authority's broader overall use of eminent domain in constructing the Green Line extension, is both constitutional and feasible. We recognize that some residents in affected areas will choose to relocate to new neighborhoods rather than occupy affordable housing projects in their area. Nonetheless, development of affordable housing opportunities along the Green Line will help to ensure that these areas remain more diverse overall. A CBA in which the MBTA agrees to give over land to a private developer rather than a public agency may be more appealing to Green Line-affected communities, since private affordable housing is often regarded as more desirable than public housing projects. Community groups should thus consider the segment of the affected population they are intending to protect when deciding whether to pursue the public housing or private development option.

---

don't produce much in the way of tax revenue, so you're going to put poor neighborhoods . . . in jeopardy").

102. See Housing Act of 1937, Pub. L. No. 75-412, 50 Stat. 888 (1937) (codified as amended at 42 U.S.C. §§ 1437-40 (2011)).

103. See *United States v. Certain Lands*, 78 F.2d 684, 687-88 (6th Cir. 1935).

104. Housing Act of 1937, Pub. L. No. 75-412, 50 Stat. 888 (1937) (codified as amended at 42 U.S.C. §§ 1437-40 (2011)).

105. *Id.*

106. Michael Schill, *Privatizing Federal Low Income Housing Assistance: The Case of Public Housing*, 75 CORNELL L. REV. 878, 894-95 (1990).

107. See, e.g., John H. Lindquist & Charles M. Barresi, *Ghetto Residents and Urban Politics: Attitudes Toward Urban Politics*, 5 LAW & SOC'Y REV. 239 (1970-1971); Richard H. Leach, *Federal Urban Renewal Program: A Ten-Year Critique*, 25 LAW & CONTEMP. PROBS. 777 (1960).



2011]

*Boston Rail Line Expansion*

109

In addition to the affordable housing portion of the proposed CBA, community groups might consider advocating for subsidized residents' subway passes for a specified time period as well as dedicated community space located near new subway stations.

## IV. CONCLUSION

Expanding mass transit to underserved neighborhoods involves a double bind: lack of transportation options impedes residents' ability to access opportunities beyond their immediate communities, but expanding transit may lead to gentrification, pricing residents out of their homes. As a first step for policymakers to adequately assess these tradeoffs, accurate information is needed regarding the likely effects of gentrification. To these ends, we merged datasets concerning demographics and housing costs with information on the locations of stations along the 1984-85 Red Line extension, and used genetic matching methods to compare areas near the expansion to similar areas throughout the Boston metro area. Overall, this analysis strongly indicated that the areas around the Red Line extension had experienced gentrification: these neighborhoods saw an influx of new residents, and average incomes and education levels increased – along with rents and home values. Therefore, this analysis serves to confirm fears that an extended Green Line may increase housing costs in Somerville and Medford and price some renters out of their homes.

With this predicted outcome in mind, an examination of ways in which community groups can mitigate the likely effects of future gentrification along the Green Line extension followed. It was posited that community benefits agreements may prove an effective method for mitigating these effects, based both on CBAs' traditional advantages and on the fact that community groups' bargaining with a public authority may offer additional advantages in this particular case. It was argued that a clause mandating that the MBTA use its eminent domain powers to provide new affordable housing ought to be at the center of any such CBA. This clause would, at least in part, blunt the harsh consequences of gentrification following subway expansion for existing lower-income neighborhood residents. While additional parameters of the proposed CBA remain under-defined, this discussion could provide a framework for community groups to assess potential agreements going forward.

## V. APPENDIX

This appendix provides greater detail about the research design and statistical method employed in this paper's quantitative section.

*Statistical Method*

Genetic matching, a statistical method that allows for the evaluation of causal claims, was used to test this paper's central hypothesis. Since matching has only recently becoming popular in policy studies, this appendix provides a short explanation of the method.

Stated briefly, matching allows the analyst to identify a control observation that is as similar as possible to a given treated observation with respect to a set of observable pre-treatment factors, called covariates. By pairing treated observations with as closely-matched control units as possible, matching allows for the estimation of the average treatment effect, in a similar way as randomized studies, e.g., FDA drug trials, randomly divide participants into treatment and control groups in order to determine the effect of treatment.

Here, the need for matching arises out of the fact that one cannot simply compare the observations in the treatment group to all other observations, for the simple reasons that areas not along the Red Line expansion are likely to differ from areas near the expansion in multiple ways that could affect their likelihood of gentrification. For instance, distance from the city center, quality of public schools and other municipal services, and many other factors may lead to differential increases in rents, home prices, and neighborhood wealth within the Boston metropolitan area. Therefore, it is necessary to identify a suitable set of control units to compare to the treated units, so that the distribution of pre-treatment control covariates in the treatment and control groups is better balanced (i.e., more similar) than previously. For each treated unit, the matching algorithm identifies a control unit that is comparable in terms of a variety of analyst-specified confounding factors. Thus, control group units were used, all having the same or very similar observed characteristics as a means of estimating the counterfactual result for a treated unit under no treatment.<sup>108</sup>

---

108. The specific matching technique used in this analysis is known as genetic matching. Genetic matching compares favorably to the two other widely accepted matching techniques (propensity score matching and Mahalanobis distance matching) in terms of bias and mean squared error reduction. Genetic matching also does not require any parametric assumptions. See Jasjeet Sekhon, *Opiates for the Matches: Matching Methods for Causal Inference*, 12 ANN. REV. OF POL. SCI. 487 (2009).

*Defining the Treatment Regime*

The unit of observation is each of the 1,282 census tracts within the Boston metropolitan statistical area. Those census tracts that are located sufficiently close to a new Red Line subway station are considered “treated” observations, while all other tracts are potential candidates for inclusion in the control group. Here, census tracts are defined as those tracts that are in part or entirely located within a 1.4 mile radius of the Porter Square, Davis Square or Alewife subway stations as having been affected by the openings of these stations. Although this 1.4 mile cutoff is admittedly subjective, it is argued that a 1.4-mile boundary includes those housing units that would most benefit from a new subway station, as this can be considered a reasonable distance to walk, bike or take a short bus ride to access. To determine which census tract lie within these bounds, an interactive map, available on the Census Bureau’s website, was used.<sup>109</sup> Of the 1,282 census tracts in metro Boston, 31 were at least partly located within 1.4 miles of these three stations.

*Achieving Balance on Key Covariates*

As previously detailed, it is necessary to balance on covariates that capture the process by which units are assigned to treatment. In other words, one must ensure that the control observations are as similar as possible to the treated observations concerning those factors that could lead to gentrification in a given area, but are orthogonal to the decision to locate a new subway station in the area. There are eight covariates in the Neighborhood Change Database that may be associated with gentrification.<sup>110</sup> These variables are: (i) distance to Boston central business district; (ii) population density;<sup>111</sup> the proportion of the census tract’s residents who are (iii) Hispanic, (iv) African American, and (v) white; (vi) rental housing as a proportion of the tract’s housing stock; (vii) owner-occupied housing as a proportion of the tract’s housing stock; and (viii) municipality name.<sup>112</sup> The values for these eight covariates are all taken from the 1970 cross-section of the Neighborhood Change Database.<sup>113</sup> Since serious, well-publicized plans to expand the Red Line

---

109. U.S. CENSUS BUREAU, *American FactFinder: Reference Maps*, [http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp?\\_pageId=referencemaps&\\_submenuId=maps\\_2](http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp?_pageId=referencemaps&_submenuId=maps_2) (last visited Apr. 21, 2011).

110. See GEOLYTICS CD-ROM, *supra* note 8.

111. The inclusion of “density” as a covariate serves to capture any changes in residents’ preferences for living in suburban versus urban areas during the period under study.

112. The inclusion of this “municipality” covariate serves to capture any potential gentrification consequences stemming from differences among municipalities. For instance, an increase in the quality of a city’s public school system could be expected to trigger a rise in property values.

113. GEOLYTICS CD-ROM, *supra* note 8.

presumably occurred mostly after 1970, all of these covariates can be considered pre-treatment.<sup>114</sup>

The following table shows the extent to which the genetic matching algorithm is able to identify a sample of control observations that resembles the treated units on these covariates. The first column of data in this table reports the standardized mean differences between the treatment and control groups concerning these eight covariates before matching;<sup>115</sup> the second column of data reports the standardized mean differences between the two groups after matching;<sup>116</sup> and the third column of data reports the percent balance improvement for the pre- and post-matching samples.

**Table 2: Comparison of Covariate Balance Pre- and Post-Matching**

Covariate	Pre-Matching Standardized Mean Difference	Post-Matching Standardized Mean Difference	Percent Balance Improvement
Distance to Boston Central Bus. Dist.	-2.987	-0.259	91.35%
Pop. Density	-17.348	0.029	99.84%
Hispanic Pop. Pct.	-0.313	-0.165	47.17%
African Amer. Pop. Pct.	0.162	0.058	64.11%
White Pop. Pct.	-0.291	-0.020	92.98%
Rental Housing Pct.	0.606	0.115	81.02%
Owner-Occ. Housing Pct.	-0.696	-0.049	92.96%
Municipality <sup>117</sup>	N/A	N/A	N/A

114. Of course, these eight covariates do not represent a complete list of factors that may affect housing costs or influence a neighborhood's gentrification. For instance, the age of an urban area's housing stock has been shown to be negatively correlated with the propensity of high-income individuals to move to that area. Jan K. Brueckner & Stuart S. Rosenthal, *Gentrification and Neighborhood Housing Cycles: Will America's Future Downtowns Be Rich?*, 91 REV. OF ECON. & STAT. 725, 741-42 (2009). The inclusion of additional covariates, therefore, would be an important improvement to this research design.

115. In other words, the first column of data shows the difference in (i) distance to downtown Boston, (ii) population density, (iii) . . . etc. for those census tracts located near the Red Line expansion versus for *all* other census tracts.

116. That is, the second column of data shows the difference in (i)-(viii) for those census tracts located near the Red Line expansion versus for *similar* census tracts not located near the Red Line.

117. "Municipality" was coded as a nominal variable, making the reporting of pre- and post-matching balance for this covariate less informative.

2011]

*Boston Rail Line Expansion*

113

As this table shows, the balance between the treatment and control groups markedly improves post-matching. In particular, the two samples are nearly identical in terms of their distance to the Boston central business district, population density, proportion of the population identified as non-Hispanic white, and proportion of the housing stock that is owner-occupied. The other four covariates are also well balanced.<sup>118</sup>

---

118. As an additional assessment of post-matching covariate balance, we conducted a series of paired-sample t-tests. These tests examine whether statistically significant differences in means exist between the treatment and control groups on each covariate. Across these eight t-tests, the lowest p-value reported is 0.22, which suggests that, under a strict  $p > 0.10$  standard, the matched groups can be considered balanced on these eight covariates. The fact that such close balance was achieved on these covariates presents a convincing case for unconfoundedness (i.e., that conditional on the observed covariates, observations were assigned to the treated group independent of outcomes).

