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Equity Audit: Transit Connectivity and “Spatial Mismatch” in New Jersey: Are New Jersey’s Minority Populations Enabled to Use Transit in a Way That Promotes Access Outside of Urban Areas?

Introduction

Connectivity is the measurement of how easily one can travel in and out of a place. Connectivity is what makes a commute to work, or a simple trip to the grocery store, possible. A state can have one thousand fancy trains. But, if you have no car, none of those trains stop in your town, and there are no bus stops either, you’re not going anywhere. Conversely, your hometown could be the most well-connected and transit-friendly town on the planet. But, if the job you want is in a town where there is no transit, you cannot get to work.

Do the four New Jersey counties of Essex, Middlesex, Somerset and Union, create sufficient transit connectivity, such that citizens who are transit dependent may move about almost as freely as those citizens with cars? This study began with the hypothesis that urban municipalities with high poverty rates and higher percentages of black and Hispanic residents will have achieved greater, more than adequate, connectivity, and that municipalities with lower rates of poverty, as well as smaller percentages of black and Hispanic residents, will overwhelmingly have less than adequate connectivity. The point of this study was to examine whether certain minority and poverty-stricken, transit dependent populations are being excluded from traveling about freely within suburban municipalities that have job opportunities available for people with fewer specialized skills.

What this study has found is that two counties have fostered connectivity as an essential service for their residents, and that two counties have not. Then, within those results, it appears that the two counties that are connectivity-sparse lack connectivity for reasons that differ between the two.

This study found that only Middlesex county has 14 municipalities with questionable to poor connectivity (a score of “1” or “0,” meaning 5 or fewer bus stops per square mile) where 12 out of those 14 with poor connectivity also serve a population troubled by a poverty rate greater 3%, and up to 10%. This means that Middlesex contains 12 municipalities with transit conditions that simultaneously discourage commuters entering from high-poverty areas for work, as well as neglect the transit needs of their own poverty-stricken citizens. Union County contains 3 municipalities that exhibit similar characteristics and raise similar concerns.

This study also found that the quality of connectivity generally corresponds predictably, and positively, with poverty in the same patterns as it corresponds to race. There are two caveats to this rule: a) Each county appears to have prioritized transit according to its own unique needs or tastes, b) this data was not analyzed for statistical significance. Municipalities that exhibit transit behavior contrary to these trends raise concerns that some populations may be discouraged from moving about freely within their borders.

This study will show that better connectivity does not necessarily blossom around train stations, and that the location of train stations appears to correlate with areas that exhibit greater transit needs, as well as with those that may simply be cute little transit villages.

Also, except for Middlesex county, communities with more sparse connectivity opportunities are likely bedroom communities with few jobs, as 50% or greater of the municipalities with lower connectivity scores in Essex, Somerset and Union counties are listed in the top 50 of New Jersey Monthly's "Top Towns" list.¹ This means that anyone challenging the right to commute into Middlesex county will have more evidence on which to base allegations of exclusion or disparate impact than is shown by the other three counties.

This study found, that despite poor connectivity scores, Middlesex county is the home of a greater quantity of employers of the kind that would typically offer positions for lower-skilled applicants, than either Essex, Union, or Somerset counties individually. On the contrary, Somerset County boasts the fewest job opportunities for lower-skilled workers of the four. This means that anybody challenging any allegedly exclusionary practices of the municipalities in Somerset county will be faced with the reality that there is not much there in the way of jobs to claim exclusion from.

Finally, this study will explore possible social incentives and legal remedies to address connectivity deficits, keeping in mind that the problem of deficient connectivity is a problem with how to get to work, and not just a problem of how to leave one's home community in the first place. However, access to mass transit is denied altogether where one cannot access the system from his or her hometown. This study will explore the potential for successful Title VI challenges as well as the potential for a public/private partnership remedy. Title VI challenges brought against NJ Department of Transportation ("NJ DOT") are potentially viable where the harm to minorities claimed is

¹ New Jersey Monthly, *Top Towns* (last accessed May 7, 2013) (Available by subscription).

the harm perpetuated by NJ DOT regulations that allow individual municipalities to have sole control over the creation of bus stops, thereby allowing municipalities to exclude transit-dependent minorities from transit access to and from their communities. The behavior of these municipalities has a disparate impact on minorities.

The Problem:

People in poverty live with connectivity conundrums. For decades now, scholars have referred to this disconnect between people who need jobs, and the places those jobs can be found, as “spatial mismatch.”² More poignantly, the problem that academia has labeled “spatial mismatch” refers to the inability of urban poor, usually people “of color,” who live in the city and cannot reach the jobs that have migrated to the suburbs because of the lack of adequate transportation to bring them to those jobs.³

Even worse is the specter of racial discrimination that lurks right out in front of the “spatial mismatch” statistics and other evidence that can otherwise be attributed to a municipality’s legitimate home-rule choices.⁴

Here is a real-world illustration of how “spatial mismatch” works. Suppose one is an able-bodied young man, who just happens to live inside the very transit-friendly city of Newark, New Jersey. Newark has a poverty rate of at least 25%.⁵ The city did not

² See *e.g.*, JOHN FOSTER BEY, BRIDGING COMMUNITIES: MAKING THE LINK BETWEEN REGIONAL ECONOMIES AND LOCAL COMMUNITY DEVELOPMENT, 8 STAN. L. & POLY REV. 25, 31 (Summer 1997).

³ See *supra* note 2.

⁴ See SHERYLL D. CASHIN, LOCALISM, SELF-INTEREST, AND THE TYRANNY OF THE FAVORED QUARTER: ADDRESSING THE BARRIERS TO NEW REGIONALISM, 88 GEO. L.J. 1985 (July 2000).

⁵ STATE OF NEW JERSEY DEPARTMENT OF LABOR, 2010 American Community Survey Poverty Status Page, *Poverty Status in the Last 12 Months by Age by County, Municipality, and Legislative District: New Jersey, 2006-2010*, (last accessed May 6, 2013), available at

develop a poverty rate of 25% by being flush with jobs for its residents. Let us suppose the young man is unemployed, but has been diligently using a friend's computer to search for jobs. He has no education past high school, but has kept himself arrest-record free. One day he sees that the job boards have posted an opening for an entry-level sanitation worker in Green Brook, NJ, in Somerset County. Unfortunately, having no car, this young man cannot even go to an interview in this borough because Green Brook has no bus stops and no train stations anywhere within its more than 4.4 square mile area.⁶

Maybe, if this young man is very fortunate, the job is located close to the border of a neighboring town with lots of transit accessibility. More than likely, the young man will attempt to look up how to get from Newark to Green Brook using NJ Transit's "Trip Planner," on the NJ Transit website,⁷ discover that NJ Transit simply does not go to Green Brook, and then continue his job search with an aim toward other, more transit-friendly towns and boroughs.

The example of the young man is an extreme example. However, the problem of "spatial mismatch" is real, as this example illustrates. In the decades since we first became aware of this issue, some improvements have been made with minority access to jobs in areas where segregation has declined.⁸ Additionally, many members of minority groups have begun to settle in the suburbs.⁹ Statistics from the 2010 U.S. Census show

<http://lwd.dol.state.nj.us/labor/lpa/industry/incpov/2010poverty.html> (This poverty data is the most current data available, and whether the data was from 2006, or 2010, cannot be discerned from the data table).

⁶ U.S. CENSUS, Geography: County Subdivision file for the State of New Jersey, CENSUS.GOV (May 6, 2013).

⁷ NJ Transit, NJTRANSIT.COM (2013) (The "trip planner" is located in the upper, left-hand corner of the home page).

⁸ See MARGERY AUSTIN TURNER, LIMITS ON HOUSING AND NEIGHBORHOOD CHOICE: DISCRIMINATION IN U.S. HOUSING MARKETS, 41 IND. L. REV. 797, 809-10 (2008).

⁹ See *supra* note 8, at 810.

that in the four county region of Essex, Middlesex, Somerset and Union, there is not one of any of the 89 municipalities contained therein that do not have minority residents.¹⁰ Unfortunately, regardless of small improvements, “[b]lack workers in particular are under-represented in jobs that are located in predominantly white suburban communities.”¹¹ It is troubling to see that at the intersection of statistics addressing who gains access to suburban jobs, and the reality of “spatial mismatch” meet, is the problem that minority workers, and black workers in particular, are actually failing to gain access to jobs for which they are otherwise suited.

One major remedy for “spatial mismatch” is mass transit.¹² Transit creates the connectivity that allows people who do not own cars to move around, especially people from within urban environments.¹³ The advent of car-oriented highways allowed jobs, but not the people from within the cities (except for the ones that could afford cars) to move into the suburbs.¹⁴ It took many years for mass transit to begin to catch up to this trend, and spatial mismatch was exacerbated thereby.¹⁵ Minorities have come to rely on mass transit far over the rates of mass transit use exhibited by white people.¹⁶

New Jersey is blessed in that it has one of the most extensive mass transit systems in America. NJ TRANSIT was created in 1979 as a branch of the New Jersey Department of Transportation to create a unified approach to transit for New Jersey

¹⁰ U.S. CENSUS, Interactive Population Search, CENSUS.GOV (last accessed Apr. 10, 2013).

¹¹ *See supra* note 8, at 810.

¹² *See* PATRICK MOULDING, FARE OR UNFAIR? THE IMPORTANCE OF MASS TRANSIT FOR AMERICA'S POOR, 12 GEO. J. ON POVERTY L. & POL'Y 155 (Spring 2005).

¹³ *See supra* note 12.

¹⁴ *See supra* note 12, at 156.

¹⁵ *See supra* note 12, at 156-57.

¹⁶ SEAN B. SEYMORE, SET THE CAPTIVES FREE! TRANSIT INEQUITY IN URBAN CENTERS, AND THE LAWS AND POLICIES WHICH AGGRAVATE THE DISPARITY, 16 GEO. MASON U. CIV. RTS L.J. 57, 66-67 (Winter 2005).

citizens, and is now the third largest provider of a diversified system of transit in the country.¹⁷

In 1980, NJ TRANSIT purchased Transport of New Jersey, the State's largest private bus company at that time. Between 1981-85, the services of several other bus companies were incorporated into NJ TRANSIT Bus Operations, Inc. On January 1, 1983, a second subsidiary, NJ TRANSIT Rail Operations, Inc. was launched to assume operations of commuter rail in the State after Congress ordered Consolidated Rail Corporation (Conrail) to cease its passenger operations. A third subsidiary, NJ TRANSIT Mercer, Inc., was established in 1984 when the agency assumed operation of bus service in the Trenton/Mercer County area. In 1992, following a full reorganization, all three subsidiaries were unified and operations were significantly streamlined.¹⁸

Despite the concentrated poverty in many New Jersey urban centers, the mere potential for these residents to be able to use the mass transit system to their advantage likely removes some barriers to job access in ways that other states have not. However, municipalities that do not have adequate transit within their borders are still prohibitive to commuters from urban centers.

It is important to understand that despite NJ TRANSIT's massive reach, the power to make, move, or prohibit bus stops comes from the municipality, and is preserved to the municipality in New Jersey's transportation statutes.¹⁹ Consequently, although NJ TRANSIT provides the busses, it is the municipality that creates the stops.

The North Jersey Planning Authority (NJPA) explains:

If the bus stop request is for a county or local road: First, a local municipality must pass a resolution or ordinance approving the site of the bus stop. If it is a county road, both the municipality and the county must pass a resolution or ordinance approving the site of the bus stop.

¹⁷ NJ Transit, About Us: History, NJTRANSIT.COM (last accessed May 7, 2013), available at http://www.njtransit.com/tm/tm_servlet.srv?hdnPageAction=CorpInfoTo.

¹⁸ See *supra*, note 15.

¹⁹ N.J.S.A. 48:4-3 et seq. (West 2007).

If the bus stop request is for a state road: The municipality must send the location of the proposed bus stop to the New Jersey Department of Transportation (NJDOT) for approval.²⁰

Municipalities that do not have many bus stops have made it that way.

Methodology

This study assumes that no one has infinite patience, and that everyone's feet get tired at some point. Rather than try to quantify the adequacy of mass transit relative to what funding is allocated toward what favorite transportation infrastructure and transit projects are established or are underway, it seemed more appropriate to assess mass transit adequacy from the perspective of what transit is used for in the first place: how one gets from point A to point B. Because money is not a good proxy for how easy it is, or how likely it is, that the passenger will get where he or she wants to end up, a different measure was needed: a connectivity measurement. The concept of connectivity incorporates funding because each transit stop, be it bus, light rail, or train, could not exist without the funding in some capacity, and the physical stop exists as a manifestation of this investment. Connectivity, however, also has an advantage that studying funding does not: one can simply count all of the transit stops that exist in one year, essentially taking a "connectivity snapshot," and have it reveal the precise level of attention being paid to transit in every municipality.

The king of connectivity is the bus stop. While trains can carry massive amounts of passengers, the bus enables the passenger without a car to come within walking distance of his or her destination. As a direct result of the normative decision in this

²⁰ North Jersey Planning Authority, THE BUS STOP SAFETY TOOLBOX, 2 (2011), *available at* <http://www.njtpa.org/plan/studies/documents/BusStopSafetyToolboxweb.pdf>.

study that the closer transit comes to one's destination, the better it is, each municipality in this study received a "connectivity score" ranging from 0 to 5 based on the number of bus stops per square mile within the municipality. A score of 0 means that there are no bus stops per square mile. A score of 1 represents the absence of adequate or convenient connectivity, indicating the presence of a fraction of a bus stop to 5 stops per square mile. 1 is still considered a poor score, because bus stops are very seldom evenly distributed throughout an area. Bus stops are situated along bus routes: leaving large areas uncovered. The score of 2 belies between >5 and 10 stops per square mile. 2 is considered an adequate score because, at last, it reveals a bus stop density that is likely walkable, even if one is walking to a connecting bus. A score of 3 is a good score, at >10 to 15 stops per square mile. The score of 4 correlates with >15 to 20 stops per square mile: a very mass transit-friendly municipality. Finally, a score of 5 represents the most transit-dense areas. At >20 stops per square mile, municipalities that earn a 5 are clearly catering to the needs of a pedestrian, and transit dependent population.

Quantities of rail stops within each municipality were noted in the data amalgamation for this study by adding a value of either bronze (1 station), silver (2), gold (3) or platinum (4 or more), to the connectivity scores of 0-5. For example, Montclair Township is a "1 platinum" municipality. The question of how to integrate the connectivity provided by trains into study was a difficult one. If their value was to be numerically measured and subsumed within a larger connectivity score, then it became an impossible choice between two values to use as proxy for connectivity—train capacities and timetables, or physical train station quantities—that are poorly related to door-to-door connectivity, and more closely related to other factors such as system capacity.

Even more troublesome, numeric values actually undermined the real value of train stations by representing them as merely one stop out of many stops within the municipality. As a result, numbers of train stations do not help to measure connectivity, and were not utilized to do so in this study, but do provide another data-point whereby municipal transportation values can be analyzed.

The four counties in this study, Essex, Middlesex, Somerset and Union, were chosen to be the subjects of this study because each are similarly situated with regard to proximity to train stations and access to rail commuting. Each county has at least two train lines running through it.²¹ When looking for connectivity trends, was important to choose counties that were similarly situated with regard to rail access. Whatever connectivity effects are created by proximity to rail lines, each of these municipalities share those effects.

Furthermore, the counties of Essex, Middlesex, Somerset and Union were chosen because of their geographic proximity to one another. Firstly, it makes sense to examine the behavior of municipalities in close proximity to a large, poverty-stricken urban center like Newark. Secondly, because this study assumes that people do not have infinite patience, it did not make sense to evaluate counties situated so as to create a meandering, several hour bus rides for commuters looking to commute from an urban center like Newark. Hence, a contiguous, four-county region, immediately surrounding the urban center, is the most appropriate area for a connectivity study that is commuter-focused.

The data contained in this study was requested directly from NJ TRANSIT employees, who then disseminated the information with the consent of their supervisors.

²¹ See the stylized rail lines map at http://www.njtransit.com/pdf/rail/Rail_System_Map.pdf (last accessed May 7, 2013).

Contained herein is a discussion of how data consisting largely of NJ TRANSIT bus stops and bus stop locations looks juxtaposed against demographic data from the U.S. Census,²² and poverty data from New Jersey's Department of Labor.²³ Note that 2013 transit data, including number of bus stops and train stations, was used for the connectivity "snapshot." All U.S. Census data is current as of 2010. All poverty data is noted on the NJ Department of Labor's spreadsheet as being current between 2006 and 2010.²⁴

Results:

This study set out to examine whether impoverished minorities from transit-rich environments within the four counties of Essex, Middlesex, Somerset and Union, New Jersey, are largely prevented from moving around freely inside wealthier, more predominantly white suburbs because of an overwhelming transit deficit in those same white suburbs. The answer is that in two counties, Essex and Union, there is evidence that the municipalities therein have fostered a kind of "culture of connectivity." It is unlikely that minorities seeking jobs from urban locales would be completely discouraged from moving about easily inside the municipalities that comprise Essex and Union. However, the two counties of Middlesex and Somerset exhibit some concerning patterns of connectivity deprivation that may discourage transit dependent people from moving about freely within the bounds of certain municipalities.

²² CENSUS.GOV.

²³ See *supra* note 5.

²⁴ See *supra* note 5.

Out of the four counties, all 7 cities with majority-black populations have the very highest connectivity, as anticipated. In turn, 6 out of those 7 cities have more than 20 bus stops per square mile, and 4 out of the 7 boast multiple train stations. Unexpectedly, this study found that the majority-white county of Union was just as connectivity-rich as the majority black and Hispanic county of Essex; raising serious questions about what prevents majority-white communities with increased levels of poverty, especially the large quantity that will be noted *infra* in Middlesex and Union counties, from increasing their connectivity. Concerns about transit deprivation are derived from the finding that transit connectivity patterns correlate strongly, and positively, with poverty in the same way that they correlate with race: indicating that poorer community segments need more transit. In municipalities with higher levels of poverty, but poor connectivity, the resident poor may be underserved—and cut off from transit—right in their own hometowns.

Essex and Union

Essex and Union are interesting subjects for a connectivity study that hinges on race and poverty because each have roughly equivalent average municipal poverty rates (6.7% and 6.1% respectively), each have the highest two population densities of the four counties studied (6212.1 and 5217.1 average people per square mile), and each differ in area from one another only by approximately 23 square miles. However, in Essex County, white people comprise a minority of the total population (42.6%) and in Union County, white people are a majority (61.3%), exceeding the proportion of white people in Middlesex County. Essex County has 22 municipalities and Union has 21. See Appendix A for these, and more county-to-county comparisons.

The overall connectivity behavior of these two counties is conducive to transit-dependent travel. Neither of these counties had any municipalities that had a connectivity score of “0” (no bus stops per square mile). Essex County had five municipalities that scored a “1.” Of those Essex County low-scoring municipalities: one of those municipalities was Montclair, with six train stations; three of the others are likely “bedroom communities,” as they rank in the top 50 of *New Jersey Monthly*’s “Top Towns” list;²⁵ and the remaining two do have some bus stops. These remaining two municipalities are Fairfield and Roseland. Union County also had five municipalities that scored a “1:” three of these Union County low-scoring municipalities had one, or more, train stations; one of the five is likely a bedroom community, as it appears in *New Jersey Monthly*’s “Top Towns;” and the remaining municipality is Mountainside, which does have some bus stops. See Appendix D for a breakdown of how many municipalities achieved each connectivity score.

When the quantities of these two counties’ municipality transit scores are plotted out according to race and poverty, readily apparent “bell-curves” appear. Essex County’s bell-curve is steeper than Union County’s. These diagrams show that a municipality’s transit score in these two counties is likely to improve when either poverty increases, or as racial demographics become more mixed. See Table 1, below as well as Appendix B.

²⁵ See *supra* note 1. *New Jersey Monthly* ranks its Top Towns using criteria that include “the most recent available data for home prices, property taxes, crime rates, school results and various lifestyle attributes.” *New Jersey Monthly*, NJMONTHLY.COM (last accessed Oct. 4, 2013), http://njmonthly.com/articles/towns_and_schools/bestplacelive/best-places-to-live-in-new-jersey-2013.html.

Table 1: Transit Scores of Individual Municipalities: Sorted by municipal poverty rates and race demographics:

Essex County

Score	Poverty Rates %			Total % White*		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1	IIII	I			I	IIII
2-3	IIIIII	II			III	IIIIII
4-5		III	III	III	II	I

Union County

Score	Poverty Rates %			Total % White*		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1	II	III				IIII
2-3	I	IIII			II	III
4-5	II	IIII	III	II	III	IIII

In Essex County, white municipalities do very well on transit, even before adding in a large bump in poverty rates. Many majority-white communities with low poverty levels have achieved walkability. “Walkability” is an expression of these community’s transit scores of between 2 to 3, a score at which there are greater than 5, and up to 15, bus stops per square mile. In support of the hypothesis of this study, it should be noted that 5 out of the 6 lowest scoring Essex County municipalities are predominantly white, with little poverty. The highest transit scores—4’s and 5’s—are achieved by towns with higher poverty rates and mixed, or minority-dominant, demographics. See [Table 1](#), above, and [Appendix B](#).

Union County’s chart reveals similar trends. Its chart shows a similarly shaped bell-curve, but one that appears to be more shaped by poverty rates than race. Poverty

levels correlate strongly with different densities of transit connectivity. However, some municipalities' numbers run contrary to the hypothesis of this study: three out of five of those municipalities that scored a "1" are municipalities with increased levels of poverty. This is a concern, as municipalities with this outcome show facts that are contrary to the general pattern. Despite whether or not these municipalities are "Top Towns" it is worth investigating whether the minorities who reside therein have adequate access to transit.

The correlation of transit to poverty in Union County becomes more discernable when looking at the communities that have achieved a score of 2-3. These communities are more likely to be a 2 or 3 according to an increased poverty level rather than for decreased whiteness. The trend continues when looking at municipalities that score a 4-5: half are majority white, but most show increased levels of poverty. See [Table 1](#), above, as well as [Appendix B](#).

Train station charts for the counties of Essex and Union show interesting patterns. Essex county train station placement is equally correlated with poverty and with race. Essex County's pattern shows that train stations are more likely to be located in higher-poverty, more mixed-race areas. In the case of Newark, this is because Newark is an urban area. In the case of Montclair, perhaps this pattern coincides with the preferences of the residents. Union County's chart is messy, showing no clear pattern other than that white people appear to like to live near train stations in Union County. See [Table 2](#), below, and [Appendix C](#).

Table 2: Quantity of Train Stations: How the quantities of stations in each individual municipality correlate with poverty and race.

Essex						
# of Train Stations	<u>Poverty Rates %</u>			<u>Total % White*</u>		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1	II	IIIIII			IIIIII	II
2-3	II	III			III	I
4-5		II	IIIIII	IIIIII	II	

Union						
# of Train Stations	<u>Poverty Rates %</u>			<u>Total % White*</u>		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1	II	II				III
2-3		III			I	II
4-5	II	II	II		III	III

Middlesex and Somerset

Middlesex and Somerset counties are very different counties, both from Essex and Union discussed above, and from each other. Middlesex’s and Somerset’s total land area is comparable (308.9 and 301.8 square miles respectively), and both counties are majority-white (58.6% and 70.1%). However, total land mass is one factor in a very short list of similarities. Racial demographics differ between the two counties. These two counties have dissimilar poverty rates (6.5% and 3.2%), different population densities (2621.8 and 1071.7 people per square mile), and Middlesex has more than twice the population of Somerset (809,858 compared to 323,444). Middlesex County has 25 municipalities and Somerset has 21. See [Appendix A](#).

The overall connectivity behavior of these two counties is not conducive to travel by those who are transit dependent. While Middlesex has more municipalities with higher connectivity scores than Somerset County, 14 out of Middlesex’s 25 municipalities have poor transit scores between 0-1, and 18 out of Somerset’s 21 municipalities have poor transit scores between 0-1. In fact, 4 of Middlesex’s municipalities, and 11 of Somerset’s, have no bus stops within those municipalities at all (a score of 0). However, Middlesex does have 3 municipalities that earned a transit score of 4-5, each with elevated poverty between 9%-25%,²⁶ whereas Somerset County does not have any communities with transit scores between 4-5. It is interesting to note that none of Middlesex County’s low-connectivity communities are serviced by train stations, whereas six of Somerset County’s are. The presence of train stations does not necessarily correlate with increased connectivity. See [Appendix D](#).

Middlesex and Somerset counties’ charts, plotting where each municipality falls with regard to connectivity score, poverty rate and demographics, do not resemble bell-curves. Nevertheless, each reveals something about the transit priorities of that county’s communities. See [Table 3](#), below, and [Appendix B](#).

Table 3: Transit Scores of Individual Municipalities: Sorted by municipal poverty rates and race demographics:

		Poverty Rates %		Total % White*		
		0-3	>3-10	>10	0-33	>33-66
<u>Score</u>			IIIIII			
0-1	II		IIIIII		IIII	IIIIII
2-3	II		IIIIII	I	IIII	IIIIII
4-5			I	II	II	I

²⁶ See *supra* note 5.

Somerset

Score	Poverty Rates %			Total % White*		
	0-3	>3-10	>10	0-33	>33-66	>66-99
	IIIIII					IIIIII
0-1	IIIIII	IIII			I	IIIIII
2-3		IIII			II	I
4-5						

If one were to compare only the county-specific data side by side, one would think that a county’s population density is the largest determinant of a county’s municipal connectivity behavior. At first blush, this assumption makes sense: Essex and Union have the highest densities and also the best connectivity; Middlesex has a middle-level of density and has a middle-level of connectivity, and; Somerset has the lowest density and also the least connectivity. See [Appendix A](#). Indeed the high densities of Essex and Union counties may have helped to foster the “culture of connectivity” that seems apparent in those counties. However, as the transit data of Middlesex and Somerset show, density is not the whole story. See [Appendix A](#) and [B](#).

The chart for Middlesex County shows that there are an overwhelming number of transit-poor towns that are a) majority-white, or b) white, Asian and “other,”²⁷ as well as hosting poverty rates of between 3%-10%. Specifically, 12 communities scored between 0-1, yet have these elevated poverty rates. In Essex and Union counties, these rates of poverty were shown to correlate with better connectivity. The question is: why is

²⁷ See the U.S. Census, 2010 Census Interactive Population Search, CENSUS.GOV, for a breakdown of Middlesex County’s municipalities’ demographics. Middlesex County is the only county that does not have any majority-black municipalities. Additionally, New Brunswick is its only majority-minority community; where the majority demographic is Hispanic. Although Asian heritage was not originally part of this study’s data, the county’s unusual connectivity patterns prompted the question: who comprises the other portion of the municipalities that are minority white? The answer is: a large portion of Asians, with a significant quantity of other minorities mixed in.

Middlesex county so connectivity poor, and yet is host to a large population of people that have historically been mass-transit dependent?²⁸ Are these communities somehow reluctant to set up transit connectivity for some reason? After all, all each town would have to do would be to approve, and then request the bus stops from NJ DOT. This many out-of-character municipalities are a “red flag,” deserving further examination for possible remedies. Middlesex’s more connectivity-rich municipalities follow more typical increased poverty and mixed-demographic patterns. See Table 3, above, and Appendix B.

Somerset County’s connectivity chart resembles more of a “dip” than a curve, and reveals a very white county with very little poverty. Additionally, what poverty there is sometimes gets increased transit-connectivity, but usually not. The results show that there is some predictable correlation between increased poverty or mixed-demographics and enhanced connectivity in Somerset County, which on a small scale, mimics that exhibited by Essex and Union. While it is worth noting that 4 out of 7 communities with poverty rates between 3%-10% go underserved, there are likely a few factors at play in Somerset County that help explain, if not excuse, this trend. See Table 3, above, and Appendix B.

At over 300 square miles, Somerset is an enormous county with density that is only approximately 41% of even Middlesex County’s density. The New Jersey Department of Transportation (NJ DOT) map shows that Somerset has widely dispersed roadways with low-density communities.²⁹ Studies show that many impoverished people who live in transit-poor areas will simply give up and buy a car rather than depend on

²⁸ See *supra* note 12, at 167-68.

²⁹ New Jersey Department of Transportation, GIS: State and County Maps, STATE.NJ.US (last accessed May 11, 2013), <http://www.state.nj.us/transportation/gis/maps/somerset.pdf>.

spotty or non-existent transit,³⁰ thereby eliminating demand for transit. In addition, 8 of Somerset County's low-scoring communities are also listed in *New Jersey Monthly's* "Top Towns" list, and are likely bedroom communities that contain nothing much in the way of employers to attract job-seekers. Compare this fact to Middlesex County, which only has one municipality in the "Top Towns" list.³¹ Additionally, as compared to the larger quantities of employers in Middlesex County, Somerset has approximately 44% of the employers that potentially employ lower-skilled workers that Middlesex County has. See Appendix A. With fewer jobs, fewer roads, fewer people to pay the bus fare to make the trip worthwhile for a bus operator and lower density communities that lead to longer distances to traverse, Somerset County has many factors that would lead one to logically conclude that this county is not ready for mass-transit.

Both Middlesex and Somerset counties also appreciate rail stations differently. In Middlesex County, these rail stations are overwhelmingly located in higher-poverty and mixed-demographic municipalities that have a transit score of between 2 to 5. Middlesex has no rail stations located in any of its communities that are connectivity poor (12 of which are flagged for further investigation). With Middlesex County's whitest communities living farthest away from the train stations, concerns deepen about why these communities are transit-adverse. See Table 4, below, and Appendix C.

On the other hand, white people in Somerset County love trains. They love them. The majority of Somerset's train stations (8 out of 10) are located in majority-white communities. Additionally, Somerset has not relegated these train stations to high-poverty areas. While 4 out of these 10 municipalities with train stations do have elevated

³⁰ See *supra* note 12, at 167-68.

³¹ Plainsboro Township is the only Middlesex County town on the "Top Towns" list. The town is a majority White and Asian town with a poverty rate of approximately 3.9%.

levels of poverty, and only 2 communities with train stations have a connectivity score of 2 or better, indicating some transit dependence, the majority are located in low-poverty areas. The majority of these train stations (8 out of 10), unlike Middlesex County, are located in otherwise connectivity deficient communities. See [Table 4](#), below, and [Appendix C](#).

Table 4: Quantity of Train Stations: How the quantities of stations in each individual municipality correlate with poverty and race.

Middlesex # Train Stations

	<u>Poverty Rates %</u>			<u>Total % White*</u>		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1						
2-3	I	IIII			III	II
4-5		I	III		III	I

Somerset # Train Stations

	<u>Poverty Rates %</u>			<u>Total % White*</u>		
	0-3	>3-10	>10	0-33	>33-66	>66-99
0-1	IIII	II				IIIIII
2-3		II			I	I
4-5						

Four County Results Take-Away

Consequently, while many municipalities in Middlesex and Somerset have such poor connectivity that transit-dependent individuals would likely be discouraged from moving about freely within many of their constituent municipalities, the evidence points to the fact that there may be more for these populations to be deprived of in Middlesex County than there is to be deprived of in Somerset County. Another trouble spot is in

Union County, a county that is largely transit-friendly. Union has 3 municipalities with poor transit levels that also show elevated rates of poverty. While 2 of these three are in the “Top Towns” list, the fact that elevated poverty is present in each means that these are not just idyllic bedroom communities. These may be communities that have a lot of money for good schools and fancy houses because of the economic growth fostered by availability of local jobs.

The exact economic and business-to-residential composition of Middlesex County’s 12 communities with underserved poverty levels, and Union County’s 3 communities, is beyond the scope of this report’s inquiry. However, the data used for this paper suggests that there 12 communities in Middlesex county, and 3 in Union County, that appear to have large numbers of employers in the county that likely hire lower-skilled workers, but these same municipalities are suspiciously underserved by transit, despite hosting higher poverty levels that ordinarily correspond with denser transit connectivity.³² These 15 municipalities show the strongest evidence of “spatial mismatch” —a problem that goes beyond the inability to easily commute to an otherwise connectivity-deficient suburb—it is a harm to surrounding transit-dependent minority neighbors who are being excluded from meaningful opportunities. On the whole, 74 out of 89 municipalities are either transit accessible by transit-dependent New Jersey residents, or contain a very small amount of transit-dependent residents. In this regard, New Jersey, NJ TRANSIT, and many municipalities have a lot to be proud of with regard

³² For a list of these municipalities, see [Appendix E](#).

to providing equal job accessibility for minority residents, the population that is most often transit-dependent.³³

Discussion of Remedies:

Title VI of the *Civil Rights Act of 1964*, 42 U.S.C. § 2000d et seq.,³⁴ prohibits discrimination by recipients of federally funded programs. Although the Supreme Court held in *Guardians Assoc. v. Civil Service Com.*, 463 U.S. 582, 610-11 (1985), that this provision alone only acts to forbid “intentional” actions by funding recipients, “not actions that have a disparate impact upon minorities[,]” federal agencies are nevertheless permitted to promulgate their own regulations forbidding “disparate impact....”³⁵ Accordingly, governing regulations promulgated by the U.S. Department of Transportation (DOT) have incorporated Title VI as a means to prohibit discrimination on the basis of “race, color or natural origin” when “[p]rovid[ing] any service, financial aid, or other benefit to a person which is different, or provided in a different manner from that provided to others....”³⁶ Additionally, this DOT regulation applies to all recipients of DOT programs and funds.³⁷ Because transit agencies like NJ TRANSIT receive federal funding to provide the transportation that they provide, DOT regulations essentially prohibit discrimination in transportation services provided to New Jersey residents. Consequently, a transportation agency like NJ TRANSIT has a special mission

³³ See *supra* note 15, at 65.

³⁴ 42 U.S.C. § 2000d (2013). This federal statute gets the name “Title VI” from the public law version, PUB. L. 88-352, Title VI, § 601, July 2, 1964.

³⁵ *New York Urban League, Inc. v. State of New York*, 71 F.3d 1031, 1036 (2d Cir. 1995) (interpreting Supreme Court decisions with regard to whether a transit agency can be sued under Title VI for providing services that have a disparate impact upon minorities).

³⁶ 49 C.F.R. § 21.5(b).

³⁷ § 21.5(b)(1).

to encourage that all NJ residents, regardless of race, are provided with equal access to the mass-transit system it provides.³⁸

Courts have ruled that in order to bring a Title VI action against a transportation agency, the plaintiff must bring his or her case on the basis that the DOT regulation have been violated:

A plaintiff alleging a violation of the DOT regulations must make a *prima facie* showing that the alleged conduct has a disparate impact. Once such a showing has been made, the burden shifts to the defendant to demonstrate the existence of “a substantial legitimate justification” for the allegedly discriminatory practice. If the defendant sustains this burden, the plaintiff may still prove his case by demonstrating that other less discriminatory means would serve the same objective.

New York Urban League, Inc. v. State of New York, 71 F.3d 1031, 1036 (2d Cir. 1995).³⁹

Plaintiffs wishing to make a Title VI claim based on the discriminatory impact of a transit provider’s services must make a complaint with the DOT so that the DOT can sue on the plaintiff’s behalf, as Title VI suits carry no private right of action.⁴⁰

Previous suits claiming “disparate impact” have been brought against the agency-wide policies of transit agencies, including litigation over the effect of fare hikes on minorities, or the effect of funding favoritism for white-preferred railroad investments over minority-preferred bus investments.⁴¹ Suits brought to challenge transit-wide policies, using statistics to support those claims appear to fail. In particular, the Second

³⁸ See NJ TRANSIT’s own mission statement with regard to Title VI (last accessed May 13, 2013) at http://www.njtransit.com/tm/tm_servlet.srv?hdnPageAction=TitleVITo.

³⁹ *Id.* (citing *Georgia State Conference of Chapters of NAACP v. Georgia*, 775 F.2d 1403, 1417 (11th Cir. 1985)) (internal citations omitted).

⁴⁰ See *SEYMORE* supra note 15, at 75-76 (summarizing and interpreting the Supreme Court’s decision in *Alexander v. Sandoval*, 532 U.S. 275, 292 (2001)).

⁴¹ See supra note 15, at 77-83 (discussing *Committee for a Better Northern Philadelphia v. Southeastern Pennsylvania Transportation Auth.*, 935 F.3d 1280 (3rd Cir. 1990), *New York Urban League*, 71 F.3d 1031 (2d Cir. 1995) and *Labor/Community Strategy Center v. L.A. County Metropolitan Transit Authority*, CV-94-05936-TJH, (C.D. Cal. Oct. 29, 1996).

Circuit in *New York Urban League* held that evidence of disparate impact consisting of statistics alleging the disparate impact of fare increases on minorities was insufficient to enable the court to rule that plaintiff had made out a prima facie case or that an injunction against the fare hike was warranted.⁴² In *Darensburg v. Metropolitan Transit Authority*, 636 F.3d 511, 514-15 (9th Cir. 2011), the court found that statistical evidence suggesting that the agency's decision to fund white-preferred railroad projects to a disproportionately greater degree than minority-preferred bus programs had a disparate impact on those minorities was insufficient to support a prima facie case because with a mere statistical showing that minorities preferred bus over rail, it did "not necessarily follow that an expansion plan that emphasizes rail projects over bus projects will harm minorities." It is logical to conclude that a plaintiff that brings a claim after these cases must be certain to plead evidence with particularity, including evidence of a readily ascertainable harm.

It is critical to note that where state statutes are at least partly responsible for the discriminatory impact generated through the agency at issue, courts are split as to whether the state can be joined as a party in the Title VI action against the state agency. A 1998 memo by the U.S. Department of Justice notes that federal courts had been holding "that a State may be a defendant if it is alleged that it is partly responsible for the alleged discriminatory conduct within the 'program or activity.'"⁴³ The Ninth Circuit ruled in a 1999 appeal of *Association of Mexican-American Educators (AMAE) v. State of California*, 183 F.3d 1055, 1068 (9th Cir. 1999), that a state cannot be subject to Title VI

⁴² *New York Urban League* at 1038.

⁴³ The United States Department of Justice, Title VI Legal Manual (Sep. 1998), available at http://www.justice.gov/crt/grants_statutes/legalman.php#State (citing, *inter alia*, *Association of Mexican-American Educators (AMAE) v. State of California*, 836 F. Supp. 1534, 1543 (N.D. Cal 1993)).

because a state, in its entirety, cannot fit into the definition of “program or activity” spelled out within Title VI. On the other hand, the Southern District of New York, in *U.S. v. City of Yonkers*, 880 F. Supp. 212, 232 (S.D.N.Y. 1995), held that nothing in the statutory language of Title VI “compels the conclusion that an entity must be a ‘program’ or ‘activity’ to be a Title VI defendant[,]” and finding that New York State was properly brought as a defendant in this case.⁴⁴

Pleading a Title VI claim in New Jersey

This study has shown that in New Jersey, increased minority residence correlates with increased connectivity. However, there may be two ways to utilize Title VI claims to remedy remaining “spatial mismatch” problems where the NJ state statutes have mandated that the NJ DOT administer a system that allows municipalities to forbid the creation of bus stops within their municipal borders.

First, minority plaintiffs in New Jersey may have a viable Title VI claim where they can show that they live in a municipality that refuses to approve bus stops for them to utilize, as in the case of the 12 municipalities within Middlesex County, and the 3 in Union. In this type of a Title VI action, the plaintiff will not be able to bring the claim against the municipality directly. The potential plaintiff must launch a complaint with the federal DOT. The federal DOT may find that NJ DOT’s governing statutes, that allow municipalities control over the creation of bus stops within their borders, is a burden on NJ TRANSIT’s mission to implement the mandates of Title VI. Harmed plaintiffs would have to show evidence that they have been deprived access to New Jersey’s mass transit

⁴⁴ See supra, note 43. The DOJ website and memo notes that *U.S. v. City of Yonkers*, was vacated and remanded on other grounds besides the question of whether the state can be a defendant in 96 F. 3d. 600 (2nd Cir. 1996).

system because of the NJ statutes, and DOT administration, that perpetuates the ability of the municipalities to deny them adequate use of New Jersey's mass transit system through failure to authorize adequate bus stops within their borders.

Secondly, with an eye toward remedying the remaining "spatial mismatch" in New Jersey, minority plaintiffs may be able to bring a viable Title VI claim where they can show that municipalities with poor connectivity thereby prevent access to jobs for transit-dependent minorities, and that this is the fault of the NJ statutes, and the DOT administration of this system, that allows municipalities to prevent the creation of bus stops. This will be the more difficult claim. Harm should be pled with particularity, and it is difficult to prove potential harm *vis a vis* the potential exclusion of minorities by a municipality's bus stop decisions. However, plaintiffs in this type of a case do not have to rely on statistics. They can show with certainty that minorities in New Jersey are transit dependent, and workplaces that employ low-skilled workers, of the type that would generally utilize mass-transit to reach jobs,⁴⁵ can be counted. This is the prima facie case.

Once prima facie cases are established in the two examples above, defendants in a Title VI case must "demonstrate the existence of 'a substantial legitimate justification.'"⁴⁶ The NJ DOT governing statutes, and resulting DOT administration, allows municipalities to be self-determinative, as per their constitutional right of "home rule" under the New Jersey Constitution, Article IV, § VII (11).⁴⁷ Doubtless, a constitutional right is a substantial justification. New Jersey, and its constituent transit agencies, would have the

⁴⁵ See *supra* note 15, at 70.

⁴⁶ *New York Urban League* at 1036.

⁴⁷ N.J. CONST. art. IV, § VII (11).

further justification of the public fisc. After all, it does not serve the public's interests to run superfluous buses that would remain underutilized in such a way as to seriously harm the operating budget of the NJ DOT or of NJ TRANSIT.

Nevertheless, the burden then shifts back to the plaintiffs in a Title VI case to show, that despite the defendant's substantial legitimate justification, that "other less discriminatory means would serve the same objective."⁴⁸ Here, a problem with the affordability of surplus buses is the easiest one to address. If NJ DOT took charge of initiating the creation of bus stops, NJ TRANSIT could make the final determination of whether running a bus line is economically feasible. Running a bus with sufficient frequency is another economic challenge that can be addressed by the transit agency itself, and does not bar a revision to the statutes that gives NJ DOT control over bus stop creation.

On the other hand, a municipality's right of self-determination is the more difficult argument. If the power to designate bus stops is given over entirely to NJ DOT, the government agency would have an eminent domain fight to contend with whenever a recalcitrant municipality objects to a new bus stop. Nevertheless, discrimination by race is forbidden by section 1 of the U.S. Constitution's Fourteenth Amendment.⁴⁹ Insofar as Title VI codifies a remedy for discriminatory practices against recipients of federal funding, shown by a discriminatory impact rather than a discriminatory intent as established by federal DOT regulations,⁵⁰ the most compelling action for the U.S. DOT to take would be to bring suit against the NJ DOT, and the State of New Jersey, to remove

⁴⁸ *Id.*

⁴⁹ U.S. CONST. am. XIV.

⁵⁰ *See supra* notes 35 and 36.

the individual right of each municipality to create and approve bus stops, make that the job of the NJ DOT and NJ TRANSIT, and leave the municipality's right to petition to change, move, or remove bus stops in tact as codified.⁵¹ This will allow NJ TRANSIT, with all of its civil rights resources, to more quickly address service problems, allowing for the occasional eminent domain challenge, and yet preserve the ultimate NJ State constitutional right of municipal self-determination.

Public/Private Advertising Partnership

Another factor that perpetuates “spatial mismatch” is the fact that information on jobs in suburban areas can be difficult to find.⁵² It would be impractical for transit agencies to run bus lines from high-poverty areas to communities with potential job opportunities without anyone who will actually be taking that bus. But, where New Jersey municipalities like Essex and Union counties already do an excellent job with connectivity, the public has a lot to gain from better access to jobs that are already reachable via mass transit. Better information about jobs that are already available within those counties can begin to get people back to work. Furthermore, information about jobs that coincides with information about how to get there would be the most effective employment/logistical resource. People can be afraid of going new places when they are not certain how to get there, or how they can get back home.

One solution, that would also be a source of non-fare-based revenue for NJ TRANSIT, would be to partner with one or more private job-billboard website like

⁵¹ N.J.S. 48:4-7.1.

⁵² HARRY J. HOLZER, THE LABOR MARKET AND YOUNG BLACK MEN: UPDATING MOYNIHAN'S PERSPECTIVE, 621 ANNALS AM. ACAD. POL. & SOC. SCI. 47, 57-58 (Jan. 2009) (summarizing research that shows that “spatial mismatch” is exacerbated by poor information availability about jobs in the suburbs, is “often to the detriment of blacks”).

Monster®,⁵³ to provide a link to jobs in the vicinity of a customer’s destination found during a “Trip Planner”⁵⁴ search on NJ Transit’s website. The private job site can compensate NJ TRANSIT for the access. Additionally, any deal to create this kind of partnership could be negotiated to have the private job site pay for advertisement. This kind of arrangement would promote a public awareness about how to gain information about jobs, as well as promote access to information that will help residents to navigate from one’s home to remote places.

Conclusion:

Within the four New Jersey counties of Essex, Middlesex, Somerset and Union, only 15 municipalities out of 89 appear to have both insufficient connectivity to serve the residents of those municipalities, as well as insufficient connectivity to serve transit-dependent minority job-seekers from high-poverty areas. Many municipalities have poor connectivity. Most of those with poor connectivity in Somerset and Essex counties are likely bedroom communities, or are served by some bus stops, and at least one train station. Some municipalities in Union County fit this more benign description. However, 3 municipalities in Union County, and 12 in Middlesex County, have poor connectivity, or completely disallow bus stops, despite displaying the higher rates of poverty that usually correlate with higher transit scores. Additionally, these 15 suspicious municipalities are situated within more job-rich counties. This study determined that for these reasons, these municipalities could be perpetuating “spatial mismatch.” a system that operates to the detriment of transit-dependent, minority job

⁵³ MONSTER.COM.

⁵⁴ See NJ TRANSIT, Home: Trip Planner (last accessed May 13, 2013), available at http://www.njtransit.com/hp/hp_servlet.srv?hdnPageAction=HomePageTo.

seekers from higher-poverty area. If further research can prove that harm to transit-dependent minorities in NJ is occurring, by precluding them from jobs within those towns, or access to transit right in their hometowns, it is possible to claim a violation of Title VI of the Civil Rights Act of 1964. Additionally, better information on job availability, as well as readily available information on how to reach those jobs, will help remedy “spatial mismatch” occurring in the many municipalities that are already transit-friendly. Minority access to transit cannot be examined on general, transit-wide basis. A general basis is a basis on which many Title VI claims fail. Despite New Jersey’s generally excellent mass-transit system, and focus on providing proper access for minorities, the behavior of municipalities in acting to disallow the establishment of bus stops is troublesome. That behavior acts to stifle the connectivity that makes a scheme of mass transit viable. Therefore, let the actions of the municipalities in prohibiting bus stops be the basis for a Title VI claim that will give control over bus stop creation back to NJ DOT and NJ TRANSIT, and curtail the localist tendencies of New Jersey municipalities that minimize access to their towns and boroughs.

Appendix A

	Essex	Middlesex	Somerset	Union
Total Pop.*	784,029	809,858	323,444	536,499
Total Muni.s**	22	25	21	21
Total Sq. Miles	126.21	308.9	301.8	102.834
Avg. Pop. Density***	6212.1	2621.8	1071.7	5217.1
Avg. Muni. Poverty Rate****	6.7%	6.5%	3.2%	6.1%
Avg. % White People	42.6%	58.6%	70.1%	61.3%
Total Rail St. per County*****	22	14	10	16
Total Bus Stops	2257	1085	156	1391
# of Muni.s with a Score of 0-1	6	14	18	5
# of Muni.s with a Score of 4- 5	7	2	0	10
Total Muni.s That Are "Top Towns" And Also Score 0-1.	3	1	8	4
Total Businesses With Potential Openings For Low-Skilled Workers *****	8424	8591	3818	6059

*Pop. means "population."

**Muni. means "municipality"

***Average population density was calculated by dividing the county's total population by the county's total land area in square miles.

****The average municipal poverty rate was calculated by averaging each municipality's poverty rate, not by calculating the average poverty rate per capita.

*****Total rail stations does not include light rail.

*****Calculated from U.S. Economic Census, *American FactFinder* data at the county level, and making the assumption that a) manufacturing, b) wholesale trade employers, c) retail trade employers, d) "Administrative and support and waste management and remediation services," and e) health care and social assistance employers will likely employ at least some low-skilled workers.

Appendix B Connectivity of Each Municipality and the Demographics Therein

Essex

<u>Score</u>	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	IIII	I			I	IIII
2-3	IIIIII	II			III	IIIIII
4-5		III	III	III	II	I

Middlesex

<u>Score</u>	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	II	IIII			III	IIII
2-3	II	IIII	I		III	IIII
4-5		I	II		II	I

Somerset

<u>Score</u>	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	IIII	IIII			I	IIIIII
2-3		III			II	I
4-5						

Union

<u>Score</u>	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	II	III				IIII
2-3	I	IIII			II	III
4-5	II	IIII	III	II	III	IIII

Appendix C Whether Quantity of Train Stations Correlate with Better Connectivity within each Municipality, and the Demographics Served Thereby

Essex # Train Stations

	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	II	IIIIII			IIIIII	II
2-3	II	III			III	I
4-5		II	IIIIII	IIIIII	II	

Middlesex # Train Stations

	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1						
2-3	I	IIII			III	II
4-5		I	III		III	I

Somerset # Train Stations

	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	IIIIII	II				IIIIII
2-3		II			I	I
4-5						

Union # Train Stations

	0-3	<u>Poverty Rates %</u>		0-33	<u>Total % White*</u>	
		>3-10	>10		>33-66	>66-99
0-1	II	II				III
2-3		III			I	II
4-5	II	II	II		III	III

Appendix D

Essex

<u>Transit Score</u>	<u># of Muni.s</u>	<u># of Muni.s also w/ Train Stations</u>
0	--	--
1	6	2
2	3	1
3	6	2
4	1	--
5	6	4

Middlesex

<u>Transit Score</u>	<u># of Muni.s</u>	<u># of Muni.s also w/ Train Stations</u>
0	4	--
1	10	--
2	6	4
3	2	1
4	2	2
5	1	1

Somerset

<u>Transit Score</u>	<u># of Muni.s</u>	<u># of Muni.s also w/ Train Stations</u>
0	11	3
1	7	3
2	2	1
3	1	1
4	--	--
5	--	--

Union

<u>Transit Score</u>	<u># of Muni.s</u>	<u># of Muni.s also w/ Train Stations</u>
0	--	--
1	5	3
2	4	2
3	2	2
4	3	1
5	7	5

Appendix E

Middlesex County

- Cranbury
- East Brunswick Township
- Helmetta
- Monroe Township
- North Brunswick Township
- Old Bridge Township
- Piscataway Township
- Plainsboro Township
- Sayreville Township
- South Brunswick Township
- South River
- Spotswood

Union County

- Clark Township
- Mountainship
- New Providence