





## Annual Update "...and Justice for All"

DVRPC'S Strategy for
Fair Treatment and Meaningful
Involvement of All People









### Fair Treatment

# of All People

Meaningful Involvement

SEPTEMBER 2000

## Annual Update to "...and Justice for All" DVRPC's Strategy for Fair Treatment and Meaningful Involvement of All People

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September 2002

Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.



Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.

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#### **Executive Summary**

The Delaware Valley Regional Planning Commission (DVRPC) is the Metropolitan Planning Organization for the nine-county, bi-state Philadelphia-Camden-Trenton Region. In furtherance of DVPRC's mission "to plan for the orderly growth and development of the Delaware Valley Region", and to respond to federal guidance on environmental justice, the agency published "...and Justice for All": DVRPC's Strategy for Fair Treatment and Meaningful Involvement of All People in September 2001. That environmental justice report provided background information on what environmental justice (EJ) is; summarized DVRPC's existing EJ-related plans, policies, and public involvement activities, and described a quantitative and qualitative methodology for evaluating the long-range plan, the Transportation Improvement Program (TIP), and other programs.

This report updates and refines the quantitative methodology. Two new "degrees of disadvantage" demographic variables, including Female Head of Household with Child and Limited English Proficiency populations, were added, expanding the definition of disadvantage in the region to eight factors. Added significance was placed on poverty as a contributor to disadvantage, and new maps with poverty as a constant variable were created. This more fine-tuned approach located those most in need in the region. As was found in the original analysis, the great majority of "highly disadvantaged" populations (85%) are located in the region's four core cities of Philadelphia, Chester, Trenton, and Camden, separate maps of which can be found in Appendix A. Selected portions of other urbanized areas such as Norristown, West Chester, Oxford, and Coatesville in Pennsylvania, and Paulsboro, in New Jersey, among others, also qualified as "highly disadvantaged."

These highly disadvantaged areas' burdens are mitigated by quality of life factors, such as access to transit, the arterial highway network, hospitals, and regional employment centers, along with Job Access Reverse Commute routes and services. Day care centers were added as a quality of life factor in this iteration, and nearly all "highly disadvantaged" and "disadvantaged" areas had proximate day care.

The Fiscal Year 2003 Transportation Improvement Program (TIP) was overlaid onto the combined map of degrees of disadvantage and quality of life factors, to assess how TIP investments intersect with identified disadvantaged census tracts. TIP projects do not need to be directly located at an area of high disadvantage for a tangible benefit to be realized. In general, the FY 2003 TIP was found to be geographically extensive. Approximately half of all disadvantaged and highly disadvantaged tracts have a TIP project, though even those tracts without a project benefit from other TIP projects nearby or those with regional significance.

The report concludes with an attempt to analyze TIP funding by census tract. An area analysis of TIP projects in a selected highly disadvantaged area, Southwest Philadelphia, found five TIP projects in a 19 census tract area, totaling \$8.8 million

dollars. As the analysis only includes TIP projects with point-specific locations, and not regional projects, the TIP funding per census tract figure amount is \$463,000. This is significantly less than the overall region's average per census tract (\$3,468,208) since this includes regional projects, making the comparison problematic and the Southwest Philadelphia statistic underestimated. Area analyses are qualitatively descriptive at best at this point, since comparing funding by sub-region does not factor in projects that benefit the broader region.

#### I. Introduction

The Delaware Valley Regional Planning Commission (DVRPC) is the Metropolitan Planning Organization for the nine-county, bi-state Philadelphia-Camden-Trenton Region. In furtherance of DVPRC's mission "to plan for the orderly growth and development of the Delaware Valley Region", and to respond to federal guidance on environmental justice, the agency published "...and Justice for All": DVRPC's Strategy for Fair Treatment and Meaningful Involvement of All People in September 2001. That environmental justice report provided background information on what environmental justice (EJ) is; summarized DVRPC's existing EJ-related plans, policies, and public involvement activities, and described a quantitative and qualitative methodology for evaluating the long-range plan, the Transportation Improvement Program (TIP), and other programs.

Title VI of the Civil Rights Act of 1964 and the 1994 President's Executive Order on Environmental Justice (#12898) states that no person or group shall be excluded from participation in or denied the benefits of any program or activity utilizing federal funds. Each federal agency is required to identify any disproportionately high and adverse health or environmental effects of its programs on minority populations and low-income populations. In turn, Metropolitan Planning Organizations (MPO's), as part of the United States Department of Transportation's Certificate requirements, are charged with evaluating their plans and programs for environmental justice sensitivity, including expanding their outreach efforts to low income and minority populations.

Since the publication of the September 2001 Environmental Justice report, the legal basis for environmental justice continues to change. Locally, the legal dispute between South Camden Citizens in Action, a predominantly African-American and Latino neighborhood group, and the New Jersey Department of Environmental Protection, came to a halt. Early in 2001, the New Jersey Department of Environmental Protection approved the operation of the new \$50 million dollar St. Lawrence Cement Company plant in Camden, despite protests from area residents over negative health impacts. The neighborhood group sued, and on May 13, 2001, following the United States Supreme Court's ruling in Sandoval<sup>1</sup> (which limited private suits on disparate impact grounds), a United States District Court judge determined that Section 1983 of the Civil Rights Act could still be used to defend private disparate impact lawsuits. Using this section, the judge crafted a rationale to support placing an injunction on the operation of the cement plant.<sup>2</sup>

On June 16, 2001, the United States Court of Appeals for the Third Circuit overturned the injunction, allowing the plant to begin operation while the court reviewed the case,

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<sup>&</sup>lt;sup>1</sup> Supreme Court of the United States. Syllabus. Alexander, Director, Alabama Department of Public Safety, Et Al. vs. Sandoval, 532 U.S. (2001).

<sup>&</sup>lt;sup>2</sup> South Camden Citizens in Action, et al v New Jersey Department of Environmental Protection, et al, *F. Supp 2d*, No. 01-702, 2001 WL 392472 (D.N.J. April 19, 2001) (Orlofsky, J.) and Supplemental Opinion (May 10, 2001).

citing the economic impact on the plant owner and on local residents.<sup>3</sup> In December 2001, this same court rejected the lower court's rationale and the neighborhood group's bid to have the \$50 million plant shut down and its operating permits rescinded. The court found that private individuals did not have a right to make discrimination claims based on Title VI under civil rights law and did not accept the Section 1983 opinion. In April 2002, South Camden Citizens in Action appealed to the United States Supreme Court to review the Appeals Court decision.<sup>4</sup> On June 24, 2002, the Supreme Court denied the petition to hear the case.<sup>5</sup> The neighborhood group still maintains that the Appeals Court ruling is contrary to precedent and dangerously erodes legal protections citizens may invoke to protect their civil rights.

<sup>&</sup>lt;sup>3</sup> "Plant Starts Work in Polluted Camden Area," William Van Sant, Philadelphia *Inquirer*, June 19, 2001.

<sup>&</sup>lt;sup>4</sup> "Cement Plant's Foes Go To The Top", William Van Sant, Philadelphia *Inquirer*, April 16, 2002.

<sup>&</sup>lt;sup>5</sup> Supreme Court Docket 01-1547. June 24, 2002. (www.supremecourtus.gov.docket/01-1547.htm).

#### Fiscal Year 2002 Environmental Justice Technical Work Program

This technical report's goal is to update and refine the existing quantitative methodology developed in Fiscal Year 2001, published in the "...and Justice for All" report in September 2001. Comments and feedback were received from state agencies, citizens groups, DVRPC's Environmental Justice Technical Advisory Committee, Public Involvement Task Force, Regional Transportation Committee and Regional Citizen's Committee. Based on these reviews, several tasks to supplement the existing methodology were added to the Fiscal Year 2002 Work Program. Some tasks were successful and others dropped because of data limitations or other difficulties.

The completed tasks included updating demographic variables to expand the Degrees of Disadvantage analysis, by adding Female Head of Household with Child and Limited English Proficiency populations; creating separate Core City maps of the Degrees of Disadvantage, to better illustrate the most disadvantaged areas; investigating a region-specific average for poverty; adding day care centers as mitigating quality of life factors; incorporating recent updates to the Transportation Improvement Program (TIP); and attempting to determine the amount of TIP funding per census tract.

Efforts to measure the quality of the region's highway and transit network were more difficult. Highway travel time contour maps and transit travel zone maps were analyzed on a regional scale. These maps can provide an indication of accessibility in the region, though they do not directly address transit level of service or services for those with special travel needs. The Job Access Reverse Commute routes and services, those that connect urban residents with jobs at non-transit accessible suburban employment centers are already included in the Quality of Life Factors Map. A possible future iteration of this analysis could overlay the contour and zonal maps on the Degrees of Disadvantage Maps to assess travel times for the most disadvantaged populations in our region. However, it was decided that this approach would be more useful for project-level EJ assessments.

The location of community centers, a quality of life factor, was not mapped for this analysis, due to difficulties in defining the term consistently between municipalities, counties, and the two states. In addition, another potential quality of life factor, paratransit service, was not mapped due to difficulty in obtaining the data. In addition, since most paratransit routes parallel the existing transit networks (usually a mile or half-mile buffer service area around transit routes) they were already covered on DVRPC's original Quality of Life Factors Map. Other paratransit services are demandresponsive and do not follow a fixed route, making them difficult to map.

#### **II. Revised Methodology**

#### **Regional Demographics**

As environmental justice is concerned with the impacts of disparate funding and disparate services on defined minority and low-income groups, locating and mapping these groups in the region, at the smallest geographic units possible (either census tract or municipality), is important.

The quantitative methodology developed in the original report (see "...and Justice for All", September 2001) relies primarily upon available U.S. Census data, analyzed at a nine-county, regional scale for various indicators of disadvantage: concentrations of minorities, Hispanics, the elderly, the disabled, and car less and poverty households. The unit of measurement is either the municipality or census tract. The number of these factors that apply in a given census tract represent the "Degrees of Disadvantage."

The original report included the most recent U.S. Census data available for each demographic factor, though the 1990 Census had to be used for some factors, as 2000 data had not yet been released. For the three 1990 factors, car less households, poverty households, and disabled populations, the equivalent 2000 Census data has yet to be released for the publication of this updated analysis.

Two new demographic factors were added in this update---Female Head of Household with Child, and Limited English Proficiency:

#### Female Head of Household with Child

"Female Head of Household with Child" is defined in the 2000 Census as a female maintaining a household with no husband present, and with at least one child under 18 years old who is a son or daughter by birth, marriage (a stepchild) or adoption residing in the home. This factor was chosen to add gender and children into our analysis, as well as to acknowledge the strong correlation between female heads of household with child and poverty status. In addition, this group exhibits different travel patterns and needs.

#### **Limited English Proficiency**

"Limited English Proficiency" is defined in the 1990 Census (most recent data available) as "Primary Language Spoken At Home Other Than English and Speak English "Not Very Well". This captures the populations with a primary language other than English spoken at home, such as Spanish or one of many Asian languages, and of these, those who cannot speak English very well. We assume that an inability to speak English well can be a barrier to accessing goods and services, including transportation. In addition, identifying these populations and their locations is important to DVRPC's outreach efforts, particularly in assessing the need to make our publications and written materials available in additional languages. Limited English Proficiency status does not include those households whose primary language is other than English but who do speak English well. It would be false to assume, for instance, that all Primary Language

Spoken at Home Other Than English households do not speak English well or have multiple fluencies.

#### **Regional Thresholds**

A regional threshold, or average, is determined to assess whether each census tract meets or exceeds this average. A total of all persons in the specified demographic group in the nine-county region is divided by the total nine-county population to obtain this average. Each census tract that meets or exceeds the regional average is considered an "environmental justice area", and is highlighted on the corresponding maps. These tracts are areas of concern and sensitivity, based on their population composition, and form the basis for the remainder of the geographic analysis.

- The regional threshold for Female Head of Household with Child for the year 2000 is 8%. Therefore, any census tract that contains a concentration of female head of household with child residents that is equal to or greater than 8%, is shaded on the map.
- The regional threshold for Limited English Proficiency for the year 1990 is 4%. Therefore, any census tract that contains a concentration of limited English proficiency persons that is equal to or greater than 4%, is shaded on the map.

#### **III.** Analysis of New Demographic Factors

Map 1: Female Head of Household with Child Population Concentrations—2000 locates the census tracts that meet or exceed the regional threshold (average) of 8% in the year 2000. Concentrations are found in the region's four core cities of Philadelphia, Trenton, Camden, and Chester, just as many of the other disadvantaged factors mapped in the original report were found in the core cities. It is also safe to assume that urban areas would have higher averages than 8%. Concentrations were also found in each county, including census tracts in Paulsboro, Woodbury, and Glassboro in Gloucester County; Clementon and Voorhees in Camden County; Wrightstown, Pemberton Township, and Mount Holly in Burlington County; Yardley, Lower Makefield, and Bristol in Bucks County; Pottstown and Norristown in Montgomery County; Oxford, West Grove, Downington, and Coatesville in Chester County; and Upper Darby and Yeadon in Delaware County. Data was unavailable for 259 census tracts.

Map 2: Limited English Proficiency Population Concentrations—1990 locates the census tracts that meet or exceed the regional threshold of 4% in the year 1990. The four core cities have concentrations, as well as census tracts in Woolwich Township, Swedesboro, and Franklin Township in Gloucester County; Voorhees and Cherry Hill in Camden County; New Hanover, Pemberton, Southampton, and Willingboro in Burlington County; Princeton Township and West Windsor Township in Mercer County; Lower Makefield and Bensalem in Bucks County; Lower Moreland, Abington, Whitpain, and Bridgeport in Montgomery County; Honeybrook Township, New Garden, London Grove, Kennett, and West Chester in Chester County; Upper Darby and Marple Township in Delaware County. Data was unavailable for 22 census tracts.

#### **Degrees of Disadvantage**

When these two new demographic factors are combined with the original six factors (minority, Hispanic, poverty, elderly, car less, disabled), a new 8-factored composite "Degrees of Disadvantage" map is created. Map 3: Degrees of Disadvantage—2002 (8 Factors) locates areas of disadvantage in the region, with "disadvantaged" defined as meeting 1-4 factors, and "highly disadvantaged" as meeting 5-8 factors.

The revised Degrees of Disadvantage Analysis with eight factors creates a map very similar to the six-factor analysis (see Map 4: Degrees of Disadvantage—2001 (6 Factors)). There is a slight increase in those with "disadvantaged" status (1-4 factors), from 598 census tracts qualifying in the original analysis, to 636 census tracts qualifying in the new 8-factor analysis. There is a slight decrease in those with "highly disadvantaged" status (5-8 factors), from 273 census tracts in the six-factor analysis to 255 census tracts in the eight-factor analysis. Most highly disadvantaged areas are in the region's Core Cities. See Figure 1: Change in Degrees of Disadvantage Census Tracts with Addition of Two New Demographic Factors (Female Head of Household with Child and Limited English Proficiency).

Figure 1: Change in Degrees of Disadvantage Census Tracts with Addition of Two New Demographic Factors (Female Head of Household with Child and Limited English Proficiency)

2001 DOD 6-Factor Map			2002 DOD 8- Factor Map			Difference Between 6 Factor & 8 Factor Maps
Number of DOD	Number of Tracts	% of Tracts	Number of DOD	Number of Tracts	% of Tracts	Number of Tracts
0	513	37%	0	493	36%	-20
1-3	598	43%	1-4	636	46%	+38
4-6	273	20%	5-8	255	18%	-18

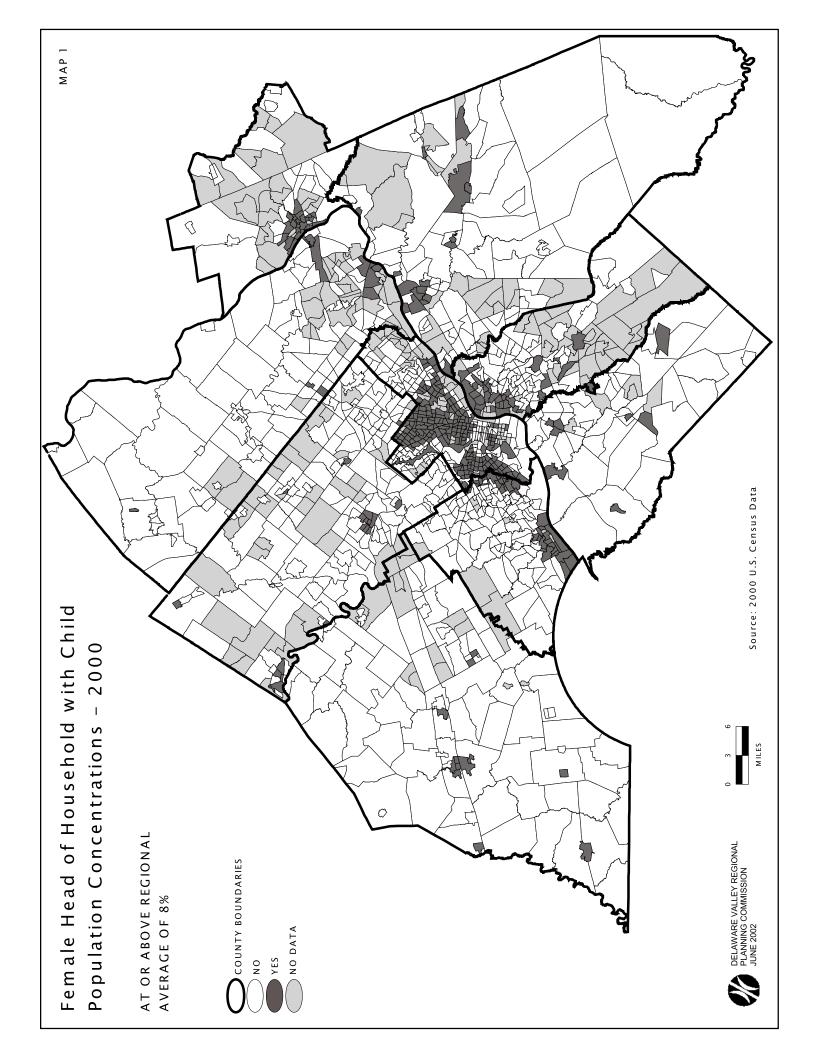
Source: DVRPC, July 2002

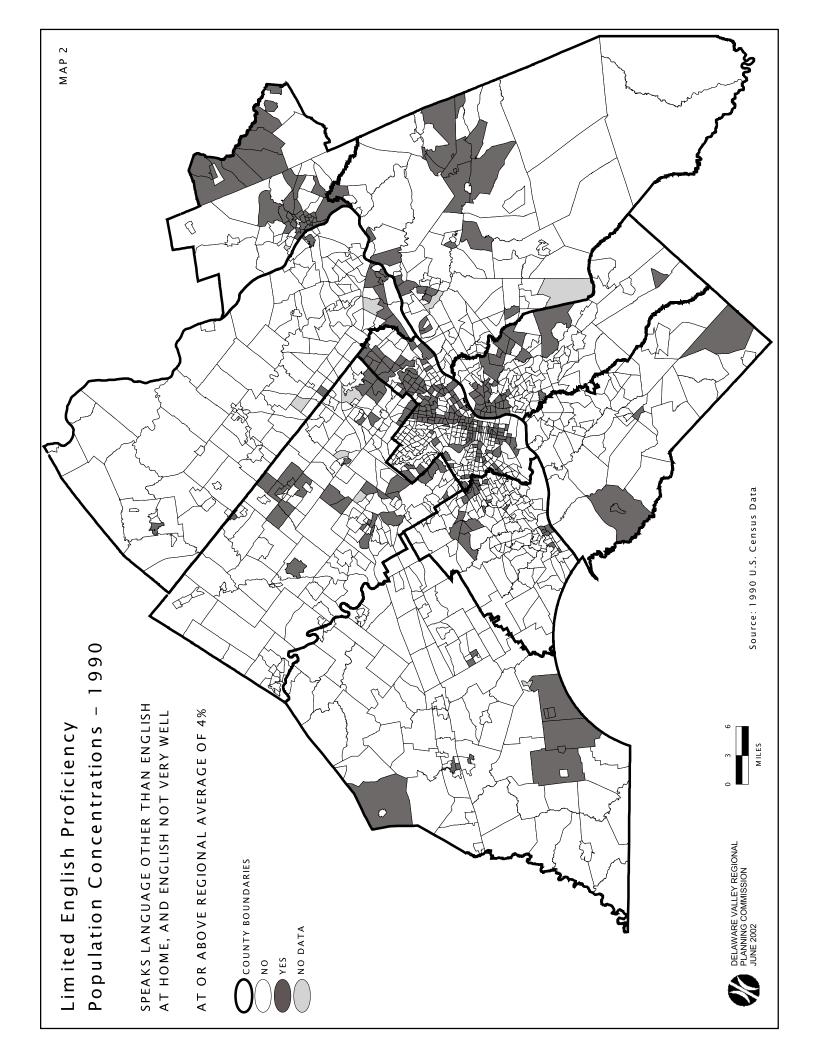
#### **Degrees of Disadvantage Holding Poverty Constant**

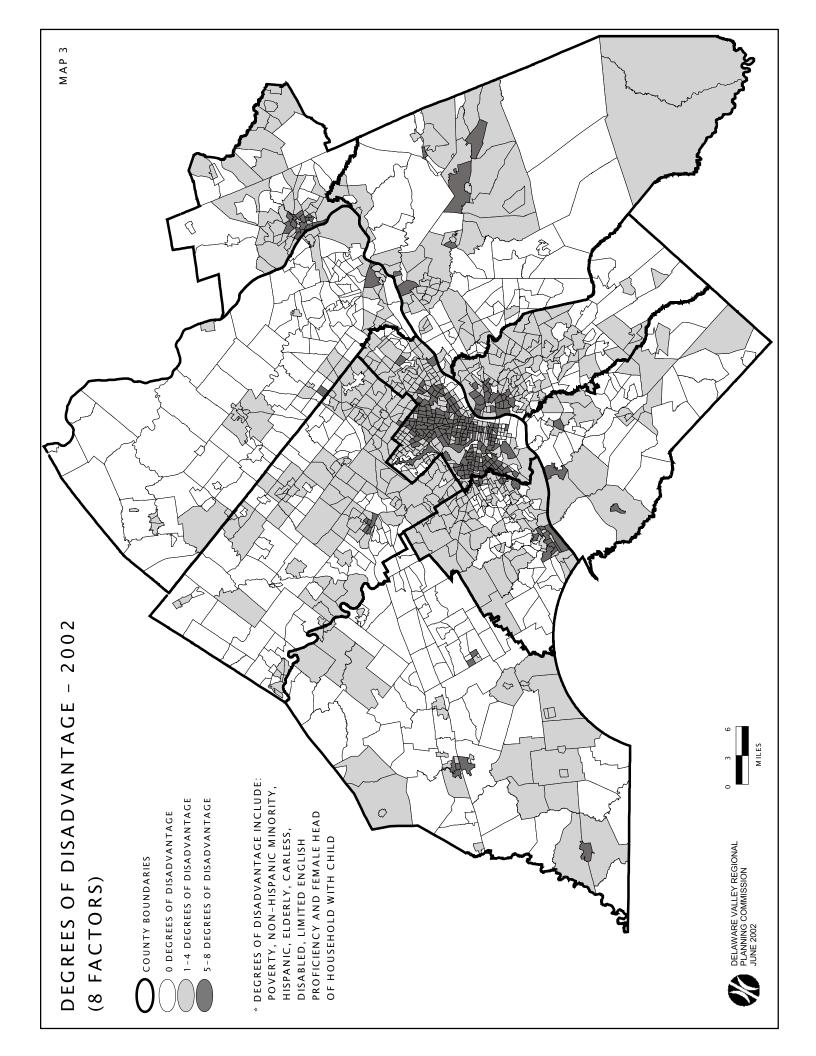
In order to give more weight to poverty as a more significant factor in "disadvantage" than other demographic attributes, such as minority or elderly status, a new analysis was completed that held poverty constant. Therefore, degrees of disadvantage were mapped within poverty census tracts, such that only census tracts that at least met the poverty threshold (with the possibility of other factors as well) were mapped.

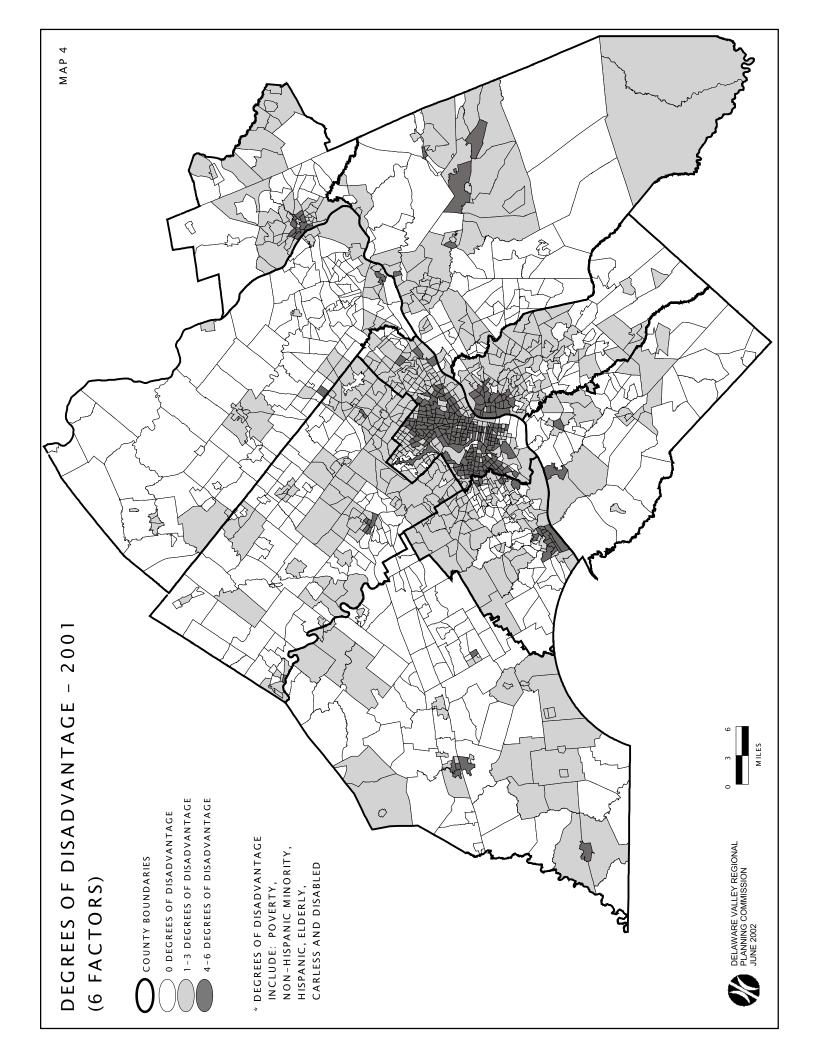
Map 5: Degrees of Disadvantage Holding Poverty Constant—2002 (8 Factors) locates these census tracts in the region. A significant number of census tracts drop off because they do not meet the poverty threshold, particularly those in the "disadvantaged" category. 636 tracts (44% of the population) previously qualified as "disadvantaged" in the 8-factor analysis, which sharply declines to 86 tracts (5% of the population) that qualify as "disadvantaged" (1-4 factors), one of which is poverty. Over half (47) of these 86 tracts are in the four core cities. The majority of highly disadvantaged tracts (5-8 factors), however, remain the same when poverty is a given, with only a slight decrease from 255 census tracts qualifying in the 8-factor analysis, and 238 census tracts qualifying in the 8-factor with poverty analysis. These 238 most impacted census tracts represent 17% of all census tracts in the region, and 18% of the population of the nine-county DVRPC region. Since the poverty data used is from the 1990 Census, as the 2000 Census data on poverty is not yet available, some areas may no longer qualify as impoverished, such as West Vincent Township in Chester County, based on county estimates. See Figure 2: Change in Degrees of Disadvantage Census Tracts Holding Poverty Constant and Figure 3: Regional Summary: Degrees of Disadvantage Census Tracts and Shares of Regional Population—2000.

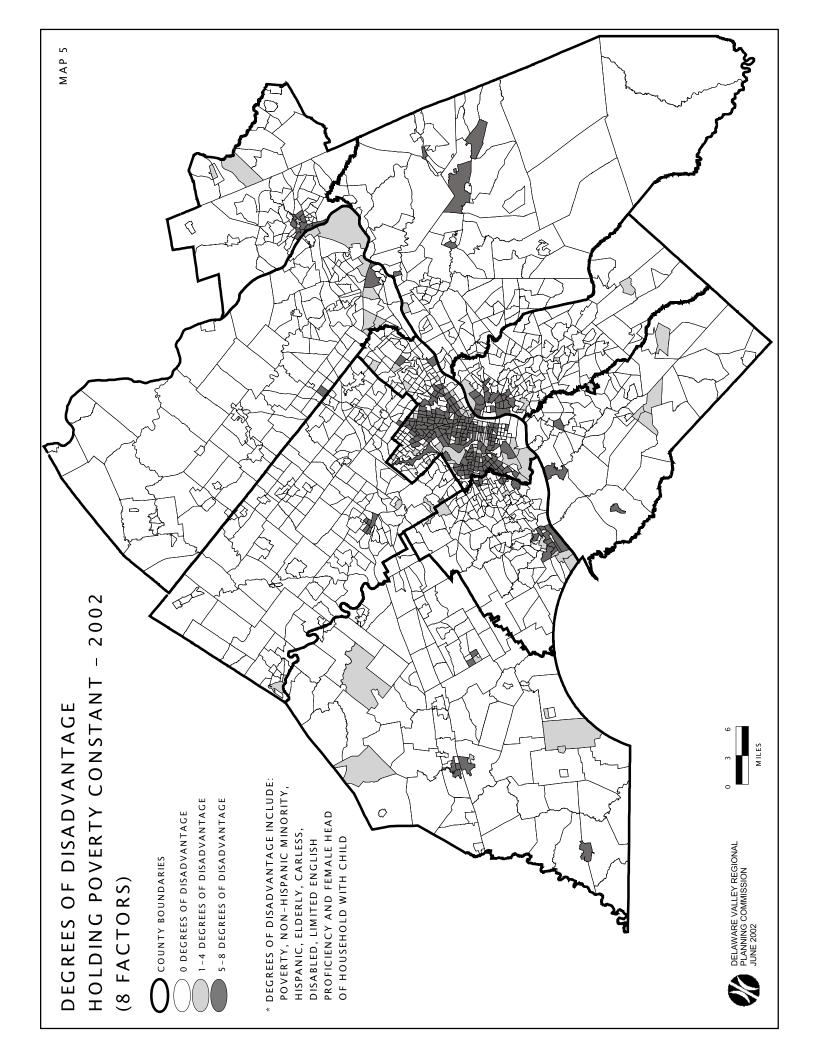
Most highly disadvantaged areas in the poverty as constant analysis continue to be in Core Cities and some county seats. In the six-factor analysis, 89% of the highly











disadvantaged census tracts were within the four Core Cities, while in the new eight-factor analysis, 85% of the highly disadvantaged tracts are within the four Core Cities, while in the eight-factor within poverty analysis, 86% are within the four Core Cities.

Figure 2: Change in Degrees of Disadvantage Census Tracts Holding Poverty Constant

2002 DOD 8- Factor Map			2002 DOD 8- Factor Holding Poverty Constant			Difference Between 8 Factor & 8 Factor Poverty Map
Number of DOD	Number of Tracts	% of Tracts	Number of DOD	Number of Tracts	% of Overall Tracts	Number of Tracts
0	493	36%	0	n/a	n/a	n/a
1-4	636	46%	1-4	86	6%	-550
5-8	255	18%	5-8	238	17%	-17

Source: DVRPC, July 2002

Figure 3: Regional Summary: Degrees of Disadvantage Census Tracts and Shares of Regional Population—2000

2002 DOD 8- Factor Map				2002 DOD 8- Factor Holding Poverty			
Number	Number	Population	%	Constant Number	Number	Population	%
of DOD	of	(2000	Population	of DOD	of	(2000	Population
	Tracts	Census)	of Region		Tracts	Census)	of Region
0	493	1,989,540	37%	0	1060	4,190,713	77%
1-4	636	2,388,310	44%	1-4	86	268,015	5%
5-8	255	1,045,452	19%	5-8	238	964,574	18%

Source: DVRPC, July 2002

#### **Towards a New Regional Poverty Measure**

Based on comments received by reviewers of the original EJ methodology, an attempt to assess poverty using a region-specific average, rather than just national criteria, was investigated. Poverty is defined by the United States Census using a Department of Health and Human Services measure applied nationally. In 1990, a family of four qualified if household income was at or below \$12,700. In 2000, the figure for a family of four is household income at or below \$17,650. The poverty figures are adjusted by the Census annually for inflation, based on the average annual total Consumer Price Index. These figures, however, do not take into account regional differences and intraregional differences in housing costs and costs of other services compared with the rest of the nation. As 2000 Census data for poverty is still not yet available, the analysis had to focus on using 1990 Census data in the original report. The regional threshold, or regional average, for poverty in 1990 was 10%. A total of all persons defined as low income in the nine-county region was divided by the total nine-county population to obtain this average. Any census tract in the region that meets or exceeds this 10% average was included as a poverty census tract.

There is ongoing national research and debate on revising poverty measures to take into account regional differences in the cost of housing, though leading researchers believe the data currently available is not adequate. In 1999, the Census Bureau and the National Academy of Sciences developed such an index that takes into account geographic differences in the cost of living, which they termed the "inter-area price index for shelter." This method is based on a modified version of a U.S. Department of Housing and Urban Development (HUD) method to develop a set of Fair Market Rents each year that vary by location. Index values were computed for 341 metropolitan areas, though the index does not account for differences within an area. The United States average is equal to 1.0. The DVRPC region, defined as a "Middle Atlantic Metro Area with population over 2.5 million", has an index value of 1.187. Thus, we can assume our region has higher than average (compared to the nation) costs for shelter, however, we are most likely lower than the New York City and Washington, DC metropolitan areas in terms of housing cost.

If we use the index value as a multiplier for the 1990 poverty rate, the qualifying household income for a family of four would then be at or below \$15,075, rather than \$12,700. Likewise, the qualifying household income for a family of four in 2000 would be at or below \$20,950, rather than \$17,650. Once the 2000 Census figures on poverty for the region are available, a new poverty map using this \$20,950 income threshold can be developed. This should paint a more accurate picture of poverty and need in the region, with more households qualifying using the region-specific average rather than relying solely on the national figure. Substantial research on measuring poverty is still needed, however, though the high cost and difficulty of collecting data on inter- area price differences remains a challenge.

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<sup>&</sup>lt;sup>6</sup> United States Census Bureau, National Academy of Sciences. *Experimental Poverty Measures.* 1999.

#### **New Core Cities Maps**

The region's Core Cities, including Philadelphia, Chester, Camden, and Chester, contain many disadvantaged and highly disadvantaged census tracts. They are an area of environmental justice concern, and may warrant future analysis at a smaller geographic scale, such as the block group. Individual maps of each Core City's degrees of disadvantage can be found in Appendix A. In Philadelphia, areas of the city that qualify as "highly disadvantaged" include most of North Philadelphia and West Philadelphia, portions of South Philadelphia, and a few sections of Northwest and Northeast Philadelphia. In Chester, nearly all of the census tracts qualify as "highly disadvantaged". In Camden, nearly all of the tracts also qualify, except those that make up the central business district and adjacent waterfront. In Trenton, about half of the tracts are "highly disadvantaged."

### IV. Quality of Life Factors

Quality of Life factors are defined as attributes or services that potentially mitigate the disadvantaged status of many areas. These are positive influences upon an area. These include attributes of the region's transportation network, including the locations of arterial highways and transit systems, and access to employment centers through job/access reverse commute transportation services. Locations of services, such as employment centers and hospitals were also mapped. By examining services in specific geographic areas, potential gaps can be identified for future remedy. The original analysis found few gaps or areas of lower quality service. Most of the areas that are highly disadvantaged are well-located to transit service, employment centers, and hospitals.

A new quality of life factor, the locations of day care centers, is added for this update. Access to quality child care is important for many groups, but most especially for female heads of households with children, one of the new degrees of disadvantage factors, as well as low income and car less households.

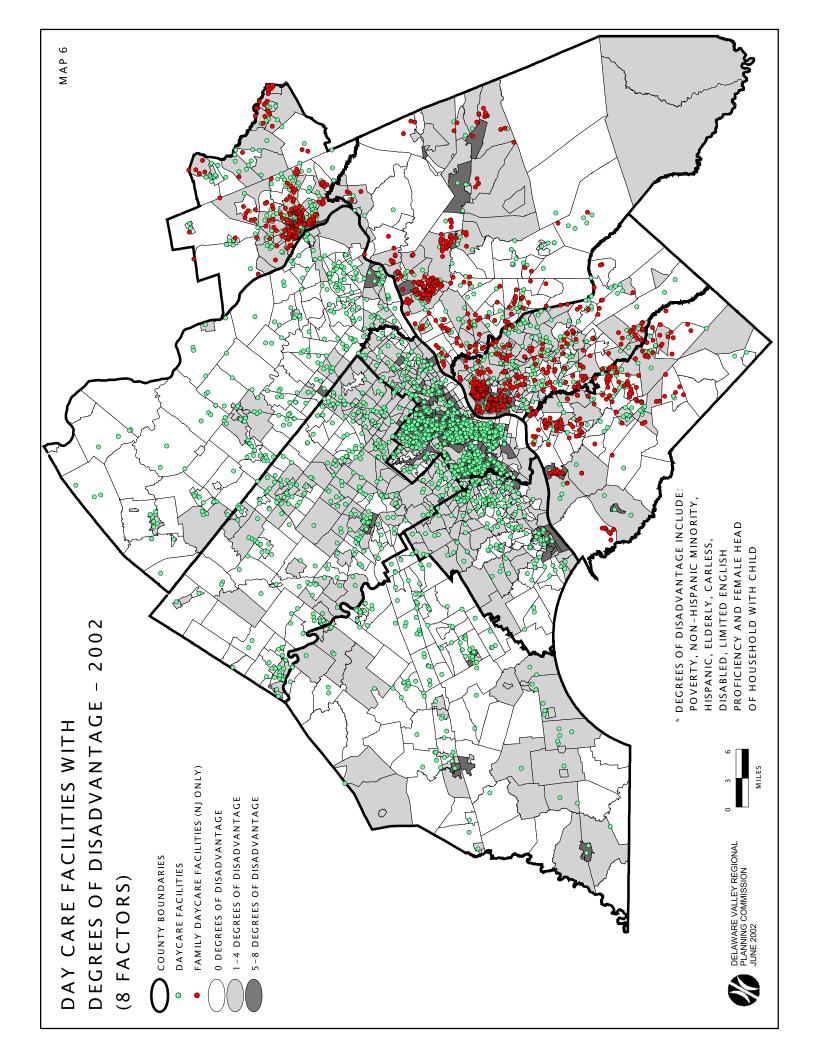
In Pennsylvania, child care data is organized by child day care centers, group child day care homes, and family child day care homes. A **child day care center** is defined as premises in which care is provided at any one time for *seven or more* children unrelated to the operator. A **group child day care home** is defined as premises in which care is provided at one time for *more than six but fewer than 16 older school-age level children* or *more than six but fewer than 13 children of another age level* who are unrelated to the operator. The term includes a facility located in a residence or another premises. A **family child day care home** is defined as a home other than the child's own home, operated for profit or not-for-profit, in which child day care is provided at any one time to *four, five or six children* unrelated to the operator (sole caregiver).

In New Jersey, child care data is organized by child care centers and family day care homes. A **child care center** is defined as any home or facility, by whatever name known, which is maintained for the care, development or supervision of *six or more children under 13 years of age* who attend for less than 24 hours a day. A **family day care home** means the private residence of the family day care provider in which child care services are provided to *no fewer than three and no more than five children* at any one time for no fewer than 15 hours per week.

The one category of child care center that is not mapped, due to the lack of available geocoded data, is family child day care homes in Pennsylvania. In 1997, according to the Delaware Valley Child Care Council, these represented approximately 8% of child care facilities in the five Pennsylvania counties that make up the DVRPC region. Thus, Map 6: Day Care Facilities With Degrees of Disadvantage—2002 (8 Factors) captures the remaining child care centers and group child day care homes (although the map only shows the locations of these listed as "day care facilities" in Pennsylvania because the geographic data received does not differentiate between the two types). New Jersey's geographic data, on the other hand, does differentiate between the locations of

day care centers and family day care facilities.

Map 6 illustrates that a high density of day care facilities exist in the four Core Cities, as well as near more urbanized areas, both of which correspond to the most highly disadvantaged census tracts. It would appear that all "highly disadvantaged" areas have proximate day care facilities. Almost all "disadvantaged" areas have proximate day care facilities, if not within the same census tract, then nearby. The only areas without proximate day care are some tracts in the Pinelands region of New Jersey, though these have very small populations.



### V. Transportation Improvement Program Evaluation: A New TIP

The Transportation Improvement Program (TIP) lists the transportation capital improvement priorities in the region. The TIP is required by federal transportation legislation and includes all projects in the Delaware Valley that intend to use federal funds, along with non-federally funded projects that are regionally significant. The original EJ report assessed the FY 2001 TIP in relation to the location of disadvantaged areas, in order to identify any possible gaps in mobility and accessibility in the region.

This update includes the FY 2003 TIP. The FY 2001 TIP covered both the New Jersey (FY 2001-2003) and the Pennsylvania (FY 2001-2004) portions of the region, and became effective October 1, 2000. The FY 2003 TIP for Pennsylvania and New Jersey was adopted by the Board on June 27, 2002. This FY 2003 TIP covers the years 2003-2005 in New Jersey, and the years 2003-2006 in Pennsylvania. Map 7: FY 2003 Transportation Improvement Program Evaluation locates these projects within the region. Improvement categories include highway, transit, non-motorized, and rail freight. This is overlaid on the 2002 8-factor Degrees of Disadvantage Map, to assess how the TIP intersects with the identified disadvantaged and highly disadvantaged census tracts. TIP projects do not need to be directly located at an area of high disadvantage for a tangible benefit to be realized. Disadvantaged areas that may not be directly touched by TIP projects, do benefit from other quality of life factors, particularly Job Access Reverse Commute Routes that connect residents to job locations.

Map 8: Disadvantaged Census Tracts With Or Without FY 2003 TIP Projects illustrates that of the region's 255 most highly disadvantaged census tracts, 136 tracts, or 53%, have a TIP project, while 119 tracts, or 46% do not have a TIP project. Those highly disadvantaged tracts with a TIP project are shaded purple, and those without a TIP project are shaded pink. Of those 638 census tracts that meet 1-4 degrees of disadvantage, 305 tracts, or 48%, have a TIP project, while 333 tracts, or 52%, do not have a TIP project. Those disadvantaged tracts with a TIP project are shaded deep blue, and those without a TIP project are shaded light blue.

The 2001 study that analyzed the FY2001 TIP found a higher amount of disadvantaged tracts with TIP projects, with 72% of "disadvantaged" census tracts having a TIP project, and 77% of "highly disadvantaged" census tracts with a TIP project. The discrepancy here could be attributed to the fact that the more recent 2002 analysis uses eight factors of disadvantage, and therefore captures a higher number of tracts as "disadvantaged." In addition, there may be less TIP projects in the FY2003 TIP as projects may have been completed. Disadvantaged areas in general may contain fewer TIP projects because most urban land is developed, and therefore provide less of an opportunity for major TIP projects. TIP projects in disadvantaged areas may also be less costly since they are often rehabilitation or renovation, not new construction.

Map 9: Disadvantaged Census Tracts Holding Poverty Constant With Or Without FY 2003 TIP Projects illustrates that of the 86 disadvantaged tracts with 1-4 factors including poverty, 36 tracts, or 42% have a TIP project, while 50 tracts, or 58% do not have a TIP project. Of the 238 highly disadvantaged tracts with 5-8 degrees of disadvantage including poverty, 129 tracts, or 54% have a TIP project, while 109 tracts, or 46%, do not have a TIP project.

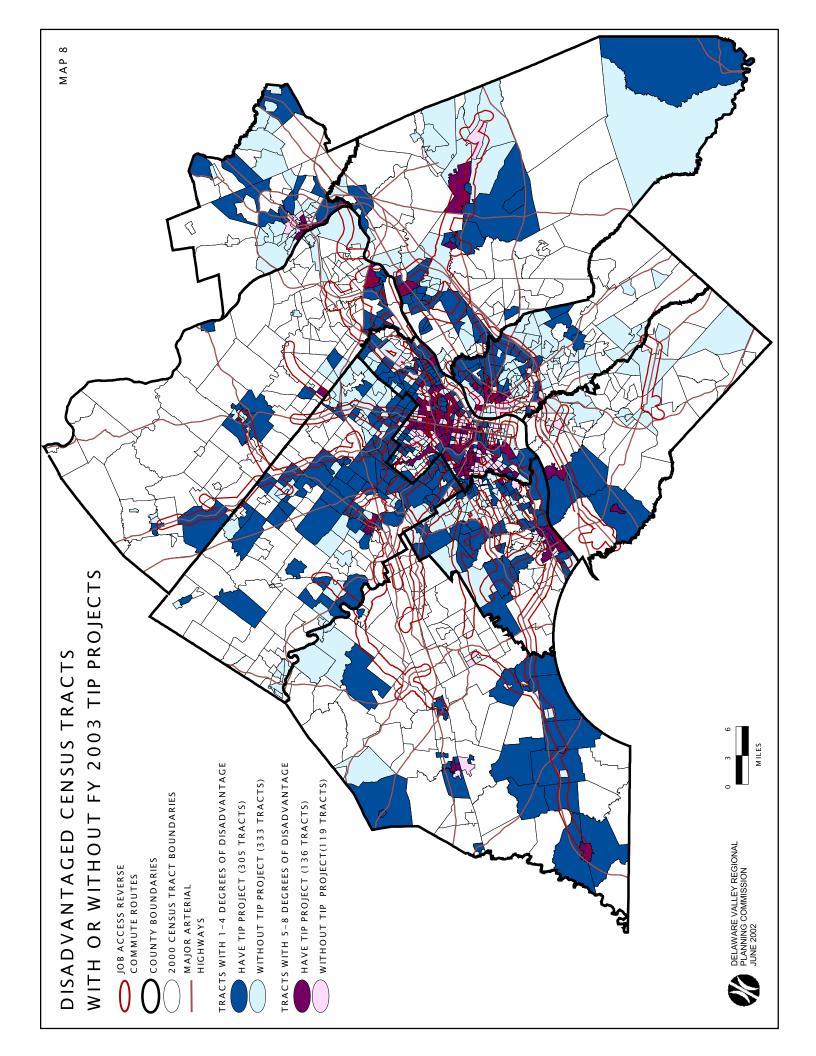
Figure 4: Degrees of Disadvantage Census Tracts, TIP Projects, and Share of Overall Regional Population indicates the population percentages of disadvantaged persons in the region with and without TIP projects. Those highly disadvantaged tracts (5-8 factors) without a TIP project represent 478,000 persons, or 9% of the overall regional population. Those disadvantaged tracts (1-4 factors) without a TIP project represent 1,157,000 persons, or 21% of the regional population. Those highly disadvantaged tracts with poverty yet without a TIP project represent 432,539 persons, or 8% of the regional population. Those disadvantaged tracts with poverty yet without a TIP project represent 145,685 persons, or 3% of the regional population. It should be emphasized again, however, that even if a disadvantaged census tract does not have a TIP project within its boundaries, it does not mean the tract is without any benefits provided by other regionally significant transportation investments and quality of life factors.

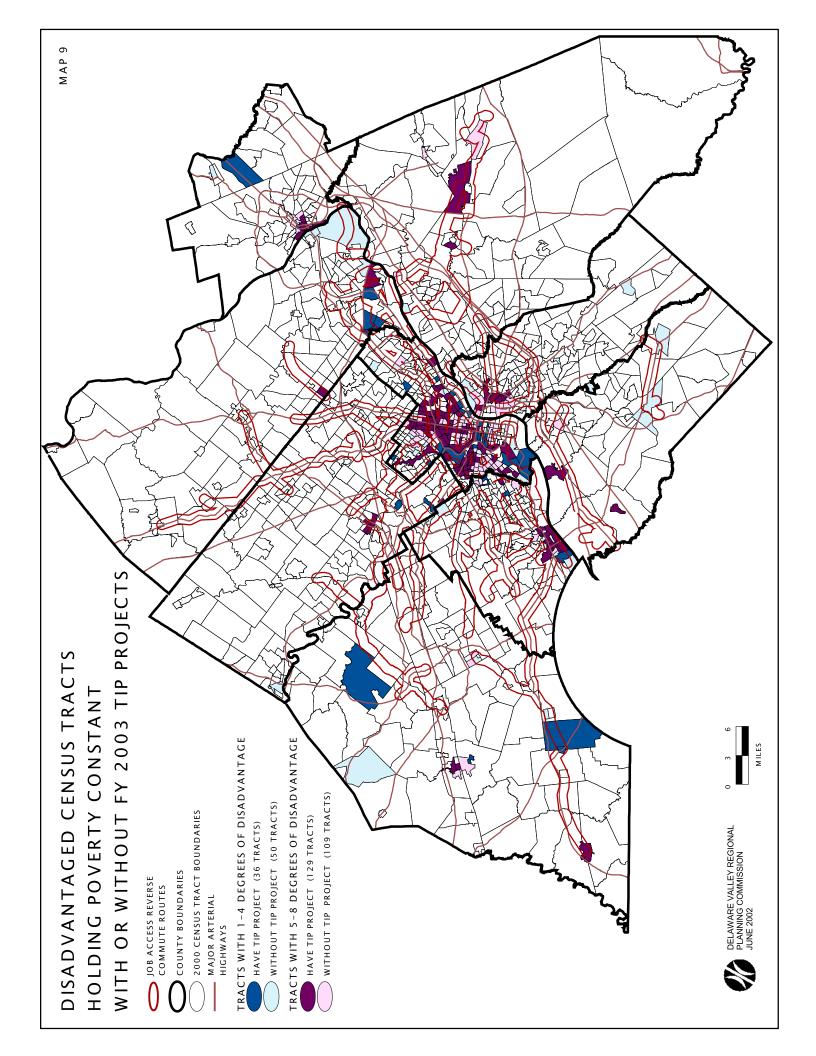
Figure 4: Degrees of Disadvantage Census Tracts, TIP Projects, and Share of Overall Regional Population\*

Number of DOD in 8-Factor Maps	# of Tracts With a TIP Project	Population	Share of Regional Population With a TIP Project	# of Tracts Without a TIP Project	Population	Share of Regional Population Without a TIP Project
1 to 4	305	1,231,195	23%	333	1,157,115	21%
5 to 8	136	567,111	11%	119	478,341	9%
1 to 4 w/poverty	36	122,329	2%	50	145,686	3%
5 to 8 w/poverty	129	532,035	10%	109	432,539	8%

Source: DVRPC, July 2002.

<sup>\*</sup> Note: Overall DVRPC nine-county regional population was 5,387,407 in 2000.





### Sample Neighborhood Analysis of TIP Funding

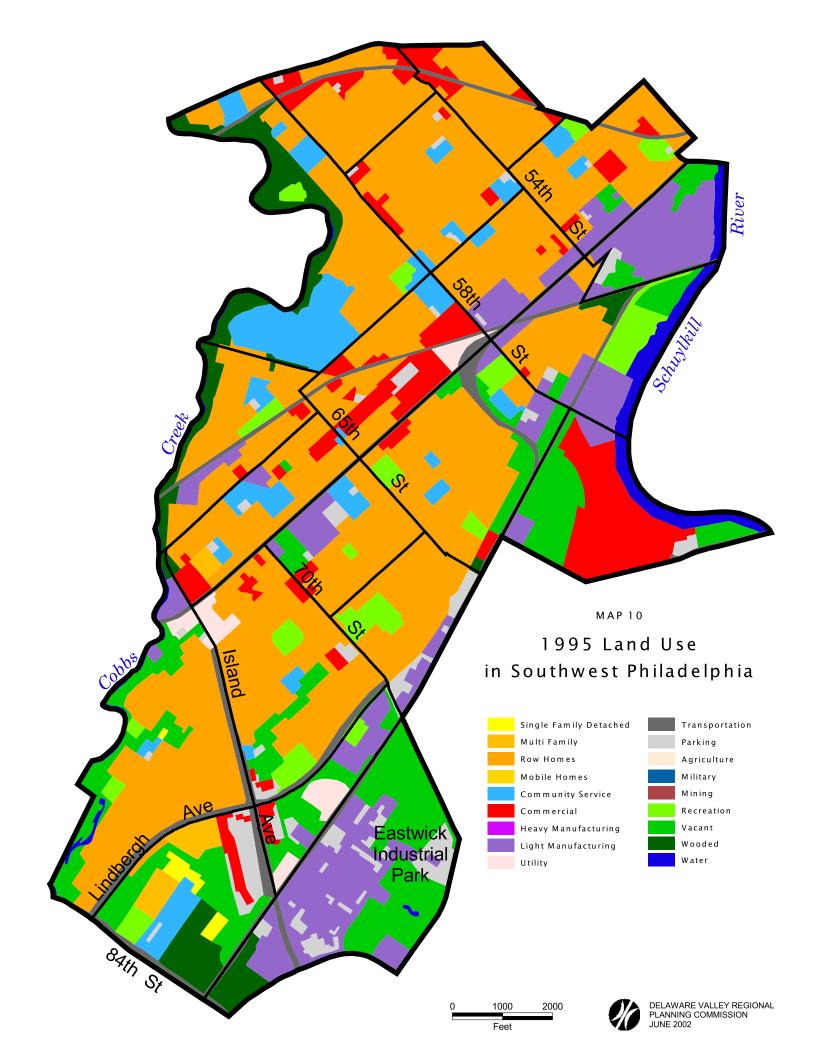
A request was made to determine the amount of TIP (Transportation Improvement Program) funding per census tract, in order to evaluate funding by geographic area, to possibly assess the level of funding for transportation improvements in disadvantaged areas. Currently there is no database of TIP project data linked with GIS mapping, though one is in development. Therefore, a full region analysis is not possible at this time. A specific area or neighborhood analysis was completed as a sample of what could be done throughout the region. It should be stressed, however, that a great number of TIP projects have regional significance, such as major transit or highway investments, and therefore might not show up as a fixed location TIP project in a specific census tract. Also, TIP projects need not be directly located within an area of high disadvantage for a tangible benefit to be realized. For example, a traffic signal improvement at an intersection improves the quality of access along the entire road, not just the specific location of the signal. In addition, a qualitative analysis of the benefits of all TIP projects is subjective, and having a TIP project in a given census tract does not automatically imply benefit either. (Some residents may view it as a negative factor.)

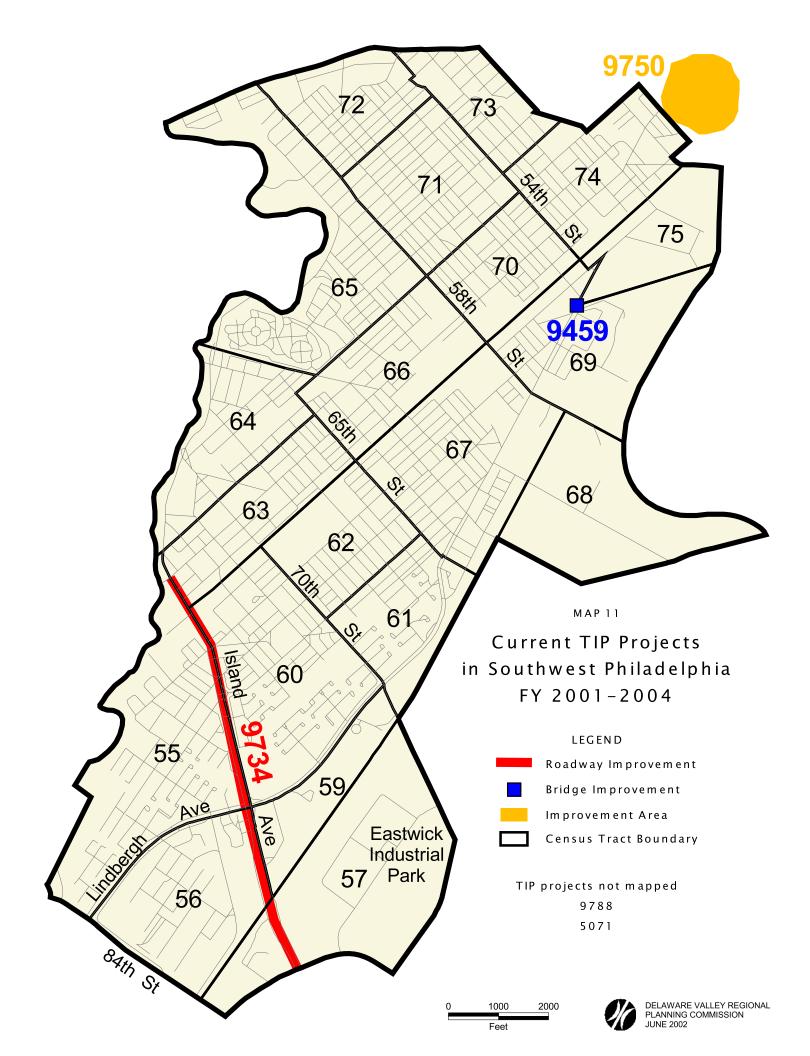
The sample specific area analysis was conducted for the Southwest Philadelphia portion of the region, given that a majority of its census tracts are classified in this analysis as "highly disadvantaged." Southwest Philadelphia is comprised of census tracts 55, 57, and 59 through 75, whose neighborhoods include Eastwick, Elmwood, and Kingsessing. Almost all of these tracts have high degrees of disadvantage or some degrees of disadvantage. Almost all the census tracts meet minority, poverty, car less, disabled, and female head of household with child thresholds. In the 2000 Census, these tracts had a population that is 73% Black, 19% White, 5% Asian, 2% Hispanic, and 2% Other. Of the tracts' 30,000 housing units, 3,800 of these, or 13%, are vacant. Map 10: 1995 Land Use in Southwest Philadelphia illustrates land use patterns in the area, including a preponderance of row homes and multi-family homes interspersed with commercial areas, and adjacent to significant amounts of light manufacturing and vacant land.

In the Fiscal Year 2001 TIP, five projects are located in this 19 census tract area of Southwest Philadelphia. Map 11: Current TIP Projects in Southwest Philadelphia FY 2001-2004 includes the following projects: Roadway signal improvements on Island Avenue from Woodland Avenue to Bartram Avenue at a cost of \$1.3 million (TIP #9734); Bridge replacement on Lindbergh Boulevard over CSX Railroad at a cost of \$3.6 million (TIP #9459); Congestion Mitigation in West Philadelphia on Woodland Avenue between 42<sup>nd</sup> and 46<sup>th</sup> Street at a cost of \$369,000 (TIP #9750); Gateway landscaping on Island Avenue at a cost of \$375,000 (TIP #9788); and Eastwick Transportation Center's New R-1 Station, in the vicinity of Bartram Avenue and 84<sup>th</sup> Street at a cost of \$3.2 million (TIP #S071). More information on these TIP projects can be found in Appendix B.

Thus, for a 19 census tract area, there is \$8.8 million dollars in the Fiscal Year 2001 TIP Program for Fiscal Years 2001 to 2004 (definitely over 4 years). Averaged over 19 tracts, this amounts to \$463,000 in TIP money per census tract for Southwest Philadelphia. As was stated earlier, this figure only takes into account TIP projects that have point-specific geographic locations, and does not include dollar impacts of larger regional highway and transit projects, which would make the per tract figure much higher.

For the entire Fiscal Year 2001 TIP for Fiscal Years 2001-2004, including regional highway and transit projects, approximately \$4.8 billion dollars are programmed, which if averaged over the region's 1,384 census tracts, would amount to approximately \$3,468,208 per census tract. Even this analysis is problematic, as this *does* include projects that have regional significance that can not be attributed to specific census tracts. Thus, one can assume that the \$463,000 per census tract in Southwest Philadelphia is underestimated, as it does not include larger region-wide projects. As was mentioned previously, urban disadvantaged areas in general may contain fewer TIP projects because most urban land is developed, and therefore provide less of an opportunity for major TIP projects. TIP projects in disadvantaged areas may also be less costly since they are often rehabilitation or renovation, not new construction. While area analyses are descriptive, there remains a difficulty in measuring impacts of TIP projects or levels of TIP funding based on geographic region.





#### VI. Future Direction

In Fiscal Year 2003, DVRPC will continue implementation of the federal EJ requirements in the Delaware Valley region by monitoring the effectiveness of the policy statement and public participation strategies developed in Fiscal Year 2001 and Fiscal Year 2002, and continuing to assess the DVRPC transportation planning and capital investment processes to identify the regional benefits and burdens for different socioeconomic groups. Demographic variables will be updated as additional 2000 Census data is released.

While the technical focus on the EJ issue has been at the forefront of DVRPC's effort, the public involvement side has surged forward as more than 200 organizations throughout the Delaware Valley have expressed an interest in learning more. To aid these groups as well as DVRPC staff, an EJ Protocol has been drafted as a guide in dealing with the public participation needs that are unique to Title VI. In FY 2003, staff plans to apply these principles to DVRPC's own outreach efforts and to continue to seek extensive input to its Long-Range Plan, TIP and various other projects, in line with the EJ mandate.

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### **Appendix A: Core Cities Degrees of Disadvantage Maps**

- Map A-1: City of Philadelphia, PA, Degrees of Disadvantage—2002 (8 Factors)
- Map A-2: City of Philadelphia, PA, Degrees of Disadvantage Holding Poverty Constant—2002
- Map A-3: City of Chester, PA, Degrees of Disadvantage—2002 (8 Factors)
- Map A-4: City of Chester, PA, Degrees of Disadvantage Holding Poverty Constant—2002
- Map A-5: City of Camden, NJ, Degrees of Disadvantage—2002 (8 Factors)
- Map A-6: City of Camden, NJ, Degrees of Disadvantage Holding Poverty Constant—2002
- Map A-7: City of Trenton, NJ, Degrees of Disadvantage—2002 (8 Factors)
- Map A-8: City of Trenton, NJ, Degrees of Disadvantage Holding Poverty Constant— 2002

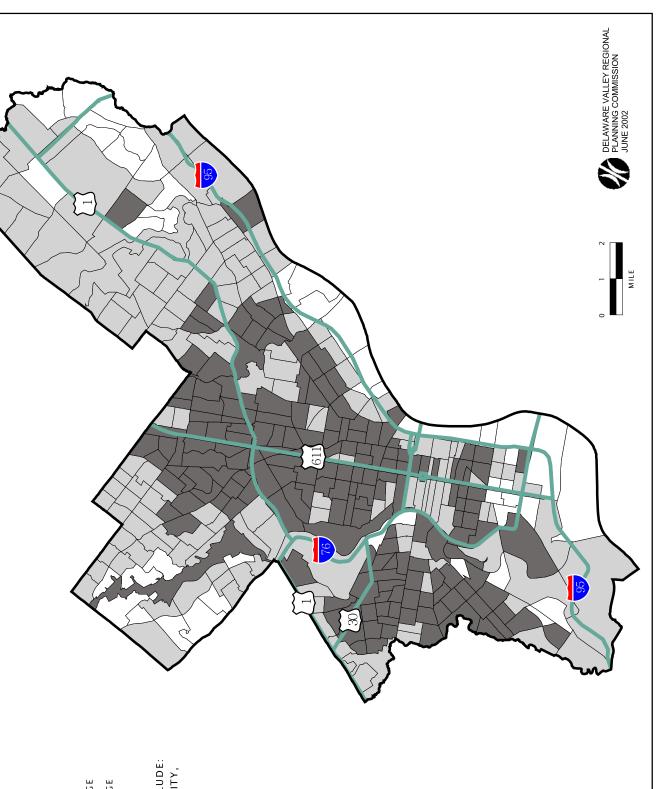
### CITY OF PHILADELPHIA, PA DEGREES OF DISADVANTAGE – 2002 (8 FACTORS)

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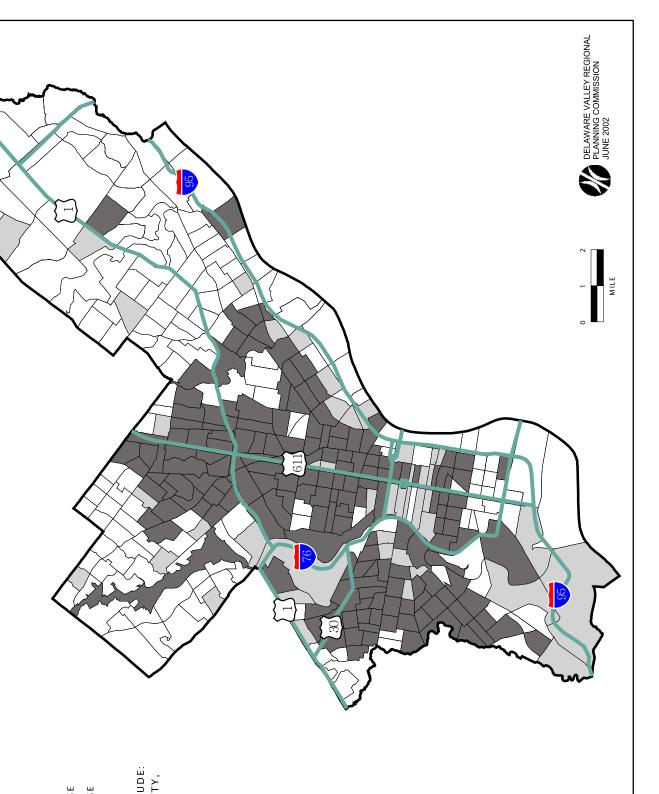
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OF HOUSEHOLD WITH CHILD



# DEGREES OF DISADVANTAGE - 2002 CITY OF CHESTER, PA

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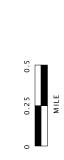
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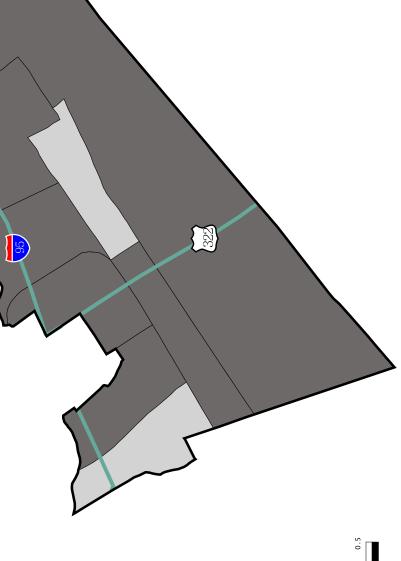
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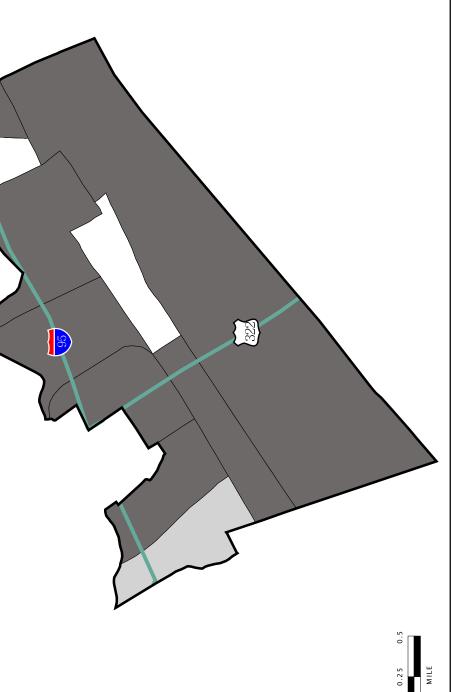
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# CITY OF CAMDEN, NJ

# DEGREES OF DISADVANTAGE - 2002 (8 FACTORS)

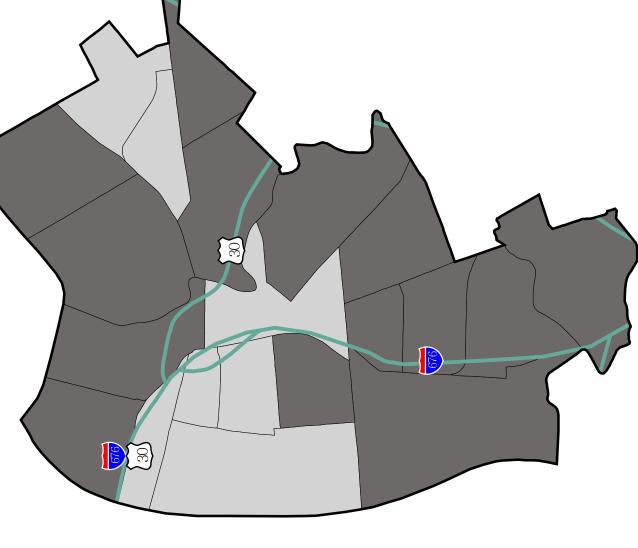
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DELAWARE VALLEY REGIONAL PLANNING COMMISSION JUNE 2002

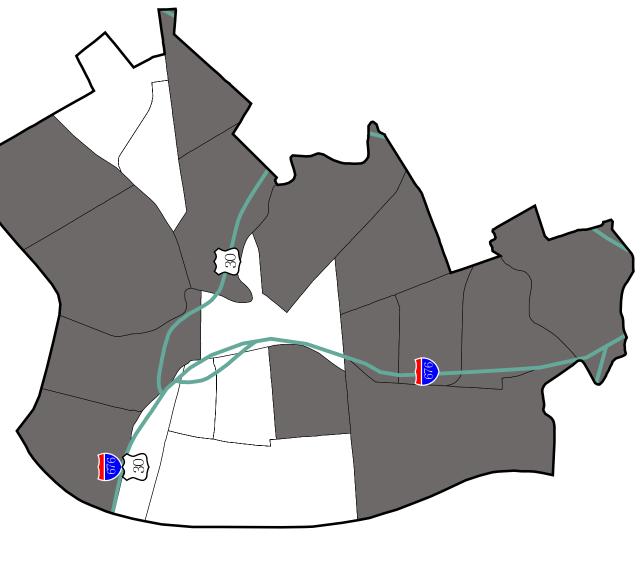
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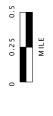
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PROFICIENCY AND FEMALE HEAD
OF HOUSEHOLD WITH CHILD











### Appendix B: Fiscal Year 2001-2004 TIP Projects in Southwest Philadelphia

There are five Fiscal Year 2001-2004 TIP Projects in Southwest Philadelphia (census tracts 55-57, and 59-75) that comprise the Eastwick, Elmwood, and Kingsessing neighborhoods.

### TIP # 9734: Roadway signal improvements on Island Ave. from Woodland Avenue to Bartram Avenue

**Description:** Upgrade signal controls at six intersections, incorporating preference for SEPTA Route 36; narrow the roadway to accommodate pedestrians; and simplify three intersections.

Cost: \$1.3 million

**Schedule:** Construction phase FY 2001

### TIP # 9459: Bridge replacement on Lindbergh Boulevard over CSX Railroad

Description: Existing bridge has two 12' lanes, 5' shoulders, and 5' sidewalks. It will be

replaced in kind. **Cost:** \$3.6 million

**Schedule:** Construction phase FY 2002

### TIP # 9750: Congestion Mitigation in West Philadelphia on Woodland Avenue between 42<sup>nd</sup> and 46<sup>th</sup> Street.

**Description:** Converting a large portion of the abandoned Breyer's ice cream plant into a parking lot to serve students and public transit commuters. The 11-acre tract is owned by the University of the Sciences and is adjacent to their facilities.

**Cost:** \$369,000

**Schedule:** Final Design/Engineering phase FY 2002

### TIP # 9788 (not mapped): Gateway landscaping on Island Avenue

**Description:** Installation of gateway treatment and landscape planting in median on

Island Avenue. **Cost:** \$375,000

Schedule: Final Design/Engineering phase FY 2001, Construction phase FY 2004

### TIP #S071 (not mapped): Eastwick Transportation Center in vicinity of Bartram Avenue and 84<sup>th</sup> Street; New R-1 Station

**Description:** Will provide for engineering and construction of a new transportation center and parking facility on the R-1 Airport Line. Will serve as transit hub for Eastwick and Airport areas. Surface transit routes 367, 68, 108, 305 will serve the station, and will circulate in employment areas surrounding the International airport. A phase one station opened in December 1997. Conceptual engineering will be done to develop the station into a multi-modal transportation center. This effort will also evaluate merits of extending the Route 36 trolley line to the transportation center.

Cost: \$3.2 million

**Schedule:** Capital asset construction phase FY 2001 and 2002

Title of Report: Annual Update of "...and Justice for All": DVRPC's Strategy for Fair Treatment and Meaningful Involvement of All People

Publication No.: 02036

Date Published: September 2002

**Geographic Area Covered:** Nine-County Delaware Valley Region, including the counties of Bucks, Chester, Delaware, Montgomery and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester and Mercer in New Jersey.

**Key Words:** environmental justice (EJ), Title VI, President's Executive Order 12898, quantitative methodology, minority, low income, disabled, elderly, car less, limited English proficiency, female head of household with child, degrees of disadvantage, regional thresholds, census tract, core cities, regional poverty measure, quality of life factors, day care centers, Transportation Improvement Program (TIP)

#### **ABSTRACT:**

This report is an annual update of DVRPC's September 2001 report on Environmental Justice entitled "...and Justice for All": DVRPC's Strategy for Fair Treatment and Meaningful Involvement of All People. It is part of DVRPC's ongoing and continuing work program and also fulfills a federal certification requirement for Metropolitan Planning Organizations that use federal funds to undertake a planning process to develop regional plans and programs. The supplement updates and refines the quantitative methodology developed in the first report. New demographic and quality of life factors are added, including limited English proficiency populations, female head of household with child populations, and the locations of day care centers. A new eightfactor degrees of disadvantage analysis and a poverty as a constant analysis are compared with the newly adopted FY 2003 Transportation Improvement Program. A sample neighborhood analysis of TIP funding focuses on Southwest Philadelphia.

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### Fair Treatment

### of All People

Meaningful Involvement