2012

America's Racially Diverse Suburbs: Opportunities and Challenges

Myron Orfield
University of Minnesota Law School

Thomas Luce

Follow this and additional works at: http://scholarship.law.umn.edu/imo_studies
Part of the Law Commons

Recommended Citation

This Article is brought to you for free and open access by the University of Minnesota Law School. It has been accepted for inclusion in Studies collection by an authorized administrator of the Scholarship Repository. For more information, please contact lenzx009@umn.edu.
Housing Policy Debate

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/rhpd20

America's Racially Diverse Suburbs: Opportunities and Challenges

Myron Orfield a & Thomas F. Luce a

a Institute on Metropolitan Opportunity, University of Minnesota Law School, Minneapolis, MN, USA


To cite this article: Myron Orfield & Thomas F. Luce (2013): America's Racially Diverse Suburbs: Opportunities and Challenges, Housing Policy Debate, DOI:10.1080/10511482.2012.756822

To link to this article: http://dx.doi.org/10.1080/10511482.2012.756822

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
America’s Racially Diverse Suburbs: Opportunities and Challenges

Myron Orfield and Thomas F. Luce*

Institute on Metropolitan Opportunity, University of Minnesota Law School, Minneapolis, MN, USA

(Received August 13, 2012; accepted December 4, 2012)

This article examines increasing racial diversity of suburban areas in the 50 largest metropolitan areas of the United States, analyzes the stability of racially diverse areas, and proposes a variety of policies designed to promote stably integrated neighborhoods, municipalities, and schools. The more than 6,500 suburban communities and 22,000 census tracts in the 50 largest metropolitan areas are divided into four types based on their racial composition and urbanization, and data for the period 1980–2010 are used to examine racial change and to evaluate the stability of different types of communities. By 2010, just 39% of suburban residents in these metropolitan areas lived in “traditional” suburbs—predominantly white communities or developing exurban areas. This is much lower than in 2000 when 51% of suburban residents lived in these types of suburbs. At the same time, the percentage of suburban residents living in racially diverse suburbs increased from 38% to 44%, and another 17% lived in predominantly nonwhite suburbs by 2010. Racially diverse suburbs exhibit many strengths, but resegregation and economic decline represent very serious challenges. Many currently integrated areas are actually in the midst of social and economic change, and many communities that were once integrated have now resegregated. Fifty-six percent of the neighborhoods that were integrated in 1980 had become predominantly nonwhite by 2010, and only 40% of neighborhoods that were integrated in the 1980 remained in that category in 2010. A variety of housing, legal, and school policies are available to promote stable integration in these areas.

Keywords: suburban; minorities; housing; discrimination; policy

Still perceived as prosperous white enclaves, suburban communities are now at the cutting edge of racial, ethnic, and even political change in America. Increasing in number and growing rapidly, diverse suburbs have replaced central cities as the places most likely to provide the potential benefits of integrated neighborhoods and schools to whites and nonwhites alike. However, many of these areas face serious challenges, including potentially rapid racial and economic transition. Better enforcement of existing laws—fair-housing laws in particular—and greater use of innovative policy tools to stabilize integrated communities are needed, or diverse suburbs may follow the same path that most of the country’s central cities have already experienced to a highly segregated future.

Racially diverse suburbs are growing faster than their predominantly white counterparts. Diverse suburban neighborhoods now outnumber those in their central cities by more than two to one.1 Forty-four percent of suburban residents in the 50 largest U.S. metropolitan areas live in racially integrated communities, which are defined as

*Corresponding author. Email: tluce@umn.edu

© 2013 Virginia Polytechnic Institute and State University
places between 20% and 60% nonwhite. Integrated suburbs represent some of the nation’s greatest hopes and its gravest challenges. The rapidly growing diversity of the United States, which is reflected in the rapid changes seen in suburban communities, suggests a degree of declining racial bias and at least the partial success of fair-housing laws. Yet, the fragile demographic stability in these newly integrated suburbs, as well as the rise of poor, virtually nonwhite suburbs, presents serious challenges for local, state, and federal governments.

By midcentury, the increasingly metropolitan nation that is the United States will have no racial majority. Last year, a majority of the children born in the United States and nearly half of all students in U.S. public schools were nonwhite (Tavernise, 2012). Almost 60% of the U.S. population lives in the 50 largest regions, with 80% in its metropolitan areas. At the same time, a growing number of central-city blacks and Latinos experience apartheid levels of segregation and civic dysfunction. In comparison, integrated suburbs, despite challenges, are gaining in population and prosperity. Given these trends, ensuring successful racially integrated communities represents the best policy path for the nation’s educational, economic, and political success.

Stably integrated suburbs are places where whites and nonwhites can grow up, study, work, and govern together effectively. Integrated communities have the greatest success in eliminating racial disparities in education and economic opportunity. Whereas nonwhites in integrated communities have seen improvements in education and employment, nonwhite residents of segregated urban communities are further behind than ever. In integrated communities, whites and nonwhites have the most positive perceptions of one another. Integrated suburbs are much more likely to be politically balanced and functional places that provide high-quality government services at affordable tax rates than high-poverty, segregated areas are. In environmental terms, they are denser, more walkable, more energy efficient, and otherwise more sustainable than outer suburbs. They also benefit from their proximity both to central cities and to outer suburban destinations.

These communities also reflect America’s political diversity. On average, they are evenly split between Democrats and Republicans and are more likely than other suburbs to switch from one party to another. As a result, they are often the political battlegrounds that determine elections. Policy makers could pay a political price for failing to connect with swing voters in these integrated suburban communities.

Yet, while integrated suburbs represent great hope, they face serious challenges to their prosperity and stability. Integrated communities have a hard time staying integrated for extended periods. Neighborhoods that were more than 23% nonwhite in 1980 were more likely to be predominantly nonwhite by 2005 than to remain integrated.\(^2\) Illegal discrimination, in the form of steering by real estate agents, mortgage-lending and insurance discrimination,\(^3\) subsidized housing placement, and racial gerrymandering of school attendance boundaries, is causing rapid racial change and economic decline. By 2010, 17% of suburbanites lived in predominantly nonwhite suburbs, communities that were once integrated but are now more troubled and have fewer prospects for renewal than their central cities. Tipping or resegregation (moving from a once all-white or stably integrated neighborhood to a largely nonwhite neighborhood), while common, is not inevitable. Stable integration is possible, but it does not happen by accident. It is the product of clear race-conscious strategies, hard work, and political collaboration among local governments. Critical to stabilizing these suburbs is a renewed commitment to fair-housing enforcement, including local stable integration plans, equitable education policies, and incentives that encourage newer, whiter, and richer suburbs to build their fair share of affordable units.
If racially diverse suburbs can become politically organized and exercise the power in their numbers, they can ensure both the stability of their communities and the future opportunity and prosperity of a multiracial metropolitan America.

Racial Diversity in the Suburbs
America is one of the most racially, ethnically, and economically diverse nations on earth. According to the U.S. Census Bureau, America will have no single racial majority in its general population by 2042. While this diversity has been a source of great strength, poor race relations have often challenged America’s stability and cohesiveness.

Black–white residential segregation remains intense, and most of the glacially paced improvement has come in areas with the smallest percentage of blacks. In the metropolitan areas where blacks form the largest percentage of the population, particularly in the Northeast and Midwest where local government is highly fragmented, segregation remains virtually unchanged at apartheid levels. For Latinos, America’s largest and fastest growing nonwhite community, residential segregation is both high and ominously constant. In areas like California and Texas, where Latinos form a large part of the population, segregation between whites and Latinos is now greater than black–white segregation (Logan & Stults, 2010).

Public school segregation, after dramatically improving in the era of civil rights enforcement (1968–1990), has significantly eroded. Blacks are now almost as racially isolated from whites as they were at the time of the passage of the 1964 Civil Rights Act. For Latino students, segregation is worse than ever (G. Orfield & Lee, 2007). Like housing segregation, school segregation is most pronounced in the Northeast and Midwest.

The regional geography of segregation parallels the continuous expansion of most metropolitan areas into undeveloped land at their fringes. As nonwhite populations followed whites to the suburbs, many inner suburbs became racially diverse, oftentimes making the full transition to predominantly nonwhite as white populations continued to move outward. Many middle suburbs are now beginning the same transition as whites continue to move outward into previously undeveloped areas, even in metropolitan areas where overall population is stagnant.

The core nonwhite neighborhoods, particularly those that have been nonwhite for the longest time, are isolated from educational and economic opportunities. In many of these neighborhoods, schools—public and charter—are failing; students are as likely to spend time behind bars as they are to go on to higher education; and banks do not lend, businesses do not prosper, and economic conditions worsen even in periods of national economic growth. Property values and the tax base decline as needs for services intensify. Tax rates go up and services decline because the city has to tax the lower-valued real estate more intensively. Businesses and individuals with economic choices choose not to locate there, and as conditions worsen, existing businesses and individuals leave.

As the core declines, new land is developed for predominantly white communities at the periphery, even in metropolitan areas with stagnant populations. Detroit provides a particularly clear example of this pattern. In the last 50 years, it has not grown in population at all but has expanded more than 60% in urbanized land area. Essentially, Detroit taxed itself to build new rings of predominantly white, exurban communities of escape, while causing its central city to become one of the most segregated and dysfunctional municipalities in the United States (see Map 1). In contrast, Portland, Oregon, has maintained a strong, stably integrated core with coordinated regional housing,
land use, and transportation policies. As a result, the developed land area and population have grown at roughly the same rate (see Map 2).

The Suburban Typology

This study, which focuses on the 50 largest metropolitan areas of the United States, identifies four suburban types. (1) Diverse suburbs are defined as communities where nonwhite residents represented between 20% and 60% of the population in 2010. (2) Predominantly nonwhite suburbs are areas where more than 60% of the population was nonwhite. (3) Predominantly white suburbs are areas that were more than 80% white. Finally, (4) exurbs are areas where less than 10% of the land area was categorized as urban in 2000 (regardless of the racial makeup).
Two features of the typology merit further explanation. First, the definition is intentionally simple. More complicated definitions using more than one nonwhite category (to attempt to accommodate increasingly complicated racial patterns in the United States) inevitably lead to typologies with many categories. The primary drawback of the simple definition employed in this work is that the “diverse” category includes areas with significantly different mixes of black, Latino, Asian, and Native American residents. White attitudes toward these groups are likely to differ, potentially affecting characteristics such as the likelihood that a community will experience white flight and racial transition. However, the bulk of the research shows that although the degree of acceptance by whites of different racial groups may differ, white flight is a potential problem where any nonwhite racial group reaches some threshold in a neighborhood (Charles, 2005). We are primarily concerned with the general challenges facing diverse neighborhoods and much less with
how these challenges may differ by racial mix. Where transition rates or other characteristics are significantly different by the type of diversity, they will be noted.

Second, because the last category—exurbs—is determined by land use instead of racial mix, it includes potential members of the other groups. (As applied, exurbs include all places with less than 10% of urban land, regardless of the racial mix.) Because metropolitan areas are defined by county (except in a few cases), they inevitably include rural areas not fully integrated into regional housing and labor markets. The dynamics of racial change are certain to be very different in these largely undeveloped, rural areas than in areas that have made the transition to suburban land uses. The exurban category is designed to essentially remove these areas from the analysis of racial transition.7

Chart 1 shows the community-type distributions of the municipalities and residents in the 50 largest metropolitan areas in 2000 and 2010. By 2010, nearly 53 million people—almost a third of the total population and 44% of the suburban population of these large metros—lived in 1,376 diverse suburbs. These numbers represent substantial increases from 2000, when 42 million people lived in 1,006 diverse communities. Another 20 million (12% of total population and 17% of suburban residents) lived in 478 predominantly nonwhite suburbs, up from 11 million in 2000.

By 2010, just 28% of metropolitan residents (or 47 million people) lived in “traditional” suburbs—predominantly white communities or developing exurban areas (nearly all of which were also predominantly white). This is much lower than in 2000 when 35% (54 million people) lived in these types of suburbs. Put another way, in just 10 years, the

Chart 1. Distribution of municipalities and residents across the community types.
percentage of suburbanites living in the 20th-century stereotype of the suburbs—largely white, rapidly developing places removed from the racial and economic diversity of the large central cities that they surround—fell from more than half (51%) to just 39%.8

**Social, Economic, and Political Characteristics of the Suburban Types**

**Diverse Suburbs**

Diverse suburbs, communities where 20–60% of the residents are nonwhite, represent the largest single suburban segment—53 million people in 2010, up from 40 million in 2000. Once a destination for whites avoiding city neighborhoods, many of these areas now struggle to maintain racial and economic diversity while competing against newer, whiter, and richer suburban communities that are often resistant to affordable housing and racial diversity.

However, diverse communities have many strengths. They are growing. The population in suburbs that were diverse in 2010 grew by 15% between 2000 and 2010—more than any other community type except the sparsely settled exurban group (see Table 1).9 In fact, suburbs that were diverse in 2010 added more population in the previous 10 years (6.8 million people) than did predominantly white areas (3.1 million) and exurbs (2.5 million) combined. They also contain more jobs per capita than any of the other groups do except central cities and show the greatest job growth of any group except exurbs (which started with a very small base of jobs). Many suburban job centers—the most important source of job growth in modern American metropolitan areas—are located in diverse suburbs because those diverse suburbs are often located near core areas and along interstate highways. Reflecting this, they are largely fully developed; about two-thirds of them are more than 80% urbanized and less than 5% of them are less than 20% urbanized.

Other common measures of social and economic welfare indicate that diverse suburbs are less stressed by low fiscal capacity and the social costs of poverty than central cities and predominantly nonwhite suburbs are but lag behind predominantly white areas (see Table 2).10 A typical diverse suburb had a local tax base roughly equal to its region’s average in 2008.11 In this regard, diverse suburbs trailed predominantly white suburbs by several percentage points but fared far better than the nonwhite suburbs or the exurbs.

The most troubling signs for diverse communities are the clear indications that many are in the midst of racial transition.12 Integrated suburbs show the most rapid racial change (relative to their individual metros) of all the community types. The nonwhite share of population in a typical diverse suburb increased from 65% of the regional average in 2000 to 78% in 2010.13

The diverse suburbs are evenly split between Democrats and Republicans. They are more likely than other types of suburbs to switch parties from one election to another and, as a result, can often decide the balance of state legislatures and the Congress or determine the outcome of gubernatorial and presidential elections (Brooks, 2004; Judis & Teixeira, 2002; M. Orfield, 2002; M. Orfield & Luce, 2010). If the diverse suburbs banded together to form a political faction, it would be hard to deny them.

**Predominantly Nonwhite Suburbs**

Twelve percent of the large metros’ population, 20 million people, lived in 478 different predominantly nonwhite suburban areas (municipalities where more than 60% of the population was nonwhite). This group showed the greatest percentage increases of any of the community types. In just 10 years, the number of municipalities in the group increased
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Central cities</td>
<td>68</td>
<td>49,199,197</td>
<td>29</td>
<td>—</td>
<td>89</td>
<td>4</td>
<td>59</td>
<td>7</td>
<td>67</td>
</tr>
<tr>
<td>Diverse suburbs</td>
<td>1,359</td>
<td>52,748,396</td>
<td>31</td>
<td>44</td>
<td>98</td>
<td>15</td>
<td>40</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>Predominantly nonwhite suburbs</td>
<td>469</td>
<td>20,122,337</td>
<td>12</td>
<td>17</td>
<td>100</td>
<td>11</td>
<td>29</td>
<td>6</td>
<td>68</td>
</tr>
<tr>
<td>Predominantly white suburbs</td>
<td>2,459</td>
<td>30,180,578</td>
<td>18</td>
<td>25</td>
<td>88</td>
<td>12</td>
<td>30</td>
<td>3</td>
<td>46</td>
</tr>
<tr>
<td>Exurbs</td>
<td>2,147</td>
<td>16,983,337</td>
<td>10</td>
<td>14</td>
<td>0</td>
<td>17</td>
<td>13</td>
<td>14</td>
<td>39</td>
</tr>
</tbody>
</table>

*Note.* Predominantly nonwhite: municipalities with more than 60% of the population nonwhite in 2005–2009 and more than 10% of land urban. Integrated: municipalities with nonwhite shares between 20% and 60% in 2005–2009 and more than 10% of land urban. Predominantly white: municipalities with white shares greater than 80% in 2005–2009 and more than 10% of land urban. Exurbs: municipalities with less than 10% of total land area urban (by census definition of urban) in 2000. *Sources:* U.S. Census Bureau, 2000; Census of Population and the American Community Survey, 2009 (population, race, poverty, land area, urban land); U.S. Census Bureau, Local Employment Dynamics (jobs); various state and local agencies (election results for 43 of the 50 metros).  
*\(^a\)*Population growth and job growth are changes based on 2010 community classifications.
Table 2. Social and economic characteristics of the community types compared to metropolitan averages, the 50 largest metropolitan areas, 2000–2010.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Central cities</td>
<td>88</td>
<td>98</td>
<td>158</td>
<td>142</td>
<td>152</td>
<td>149</td>
<td>80</td>
<td>81</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>Diverse suburbs</td>
<td>97</td>
<td>101</td>
<td>65</td>
<td>78</td>
<td>61</td>
<td>68</td>
<td>105</td>
<td>104</td>
<td>97</td>
<td>95</td>
</tr>
<tr>
<td>Predominantly nonwhite suburbs</td>
<td>66</td>
<td>101</td>
<td>150</td>
<td>150</td>
<td>116</td>
<td>123</td>
<td>83</td>
<td>79</td>
<td>74</td>
<td>72</td>
</tr>
<tr>
<td>Predominantly white suburbs</td>
<td>108</td>
<td>100</td>
<td>19</td>
<td>28</td>
<td>42</td>
<td>44</td>
<td>120</td>
<td>122</td>
<td>112</td>
<td>109</td>
</tr>
<tr>
<td>Exurbs</td>
<td>84</td>
<td>100</td>
<td>13</td>
<td>20</td>
<td>70</td>
<td>68</td>
<td>96</td>
<td>101</td>
<td>86</td>
<td>87</td>
</tr>
</tbody>
</table>

Note. Values shown are the medians for the municipalities in each group. Individual municipality values were calculated as percentages of metropolitan averages. Sources: U.S. Census Bureau, 2000; Census of Population and the American Community Survey, 2009 (population, race, poverty, land area, urban land); various state and local agencies (tax base for 43 of the 50 metros and election results for 43 of the 50 metros).
by 53%, and the number of residents rose by 72%. The increases reflect the fact that many of these municipalities were racially integrated suburbs in past decades, completing the transition to predominantly nonwhite during the 2000s. In 2010, 77% of the population in these communities was nonwhite (representing 16 million nonwhites) compared to 61% in central cities (representing 30 million nonwhites).

A variety of indicators show that predominantly nonwhite suburbs suffer many of the ills often attributed solely to central cities, and more. The tax capacity comparisons in Table 2 show that predominantly nonwhite suburbs suffer the most from tax base woes associated with recent and ongoing social change. They have by far the lowest tax bases, at just 66% of regional averages. Although central cities and predominantly nonwhite suburbs have very similar median incomes and poverty rates, central cities typically show dramatically stronger tax bases—in fact, more than 20 percentage points better. Home values, income, and poverty also worsened (compared to regional averages) in predominantly nonwhite suburbs, while they were stable or improving in central cities.

Predominantly nonwhite suburbs have displaced central cities as the most Democratic communities in metropolitan America. Nearly 70% of votes cast in all elections in these areas in 2008 went to Democratic candidates, slightly higher than the typical share in a central city.14

**Predominantly White Suburbs**

Only 18% of large metro residents live in predominantly white suburbs (areas that are both more than 80% white and at least 10% urbanized). This is the only community type that shrunk in size between 2000 and 2010, falling to 30 million people in 2,478 municipalities in 2010 from 39 million in 2,984 places in 2000. Predominantly white suburbs are still largely residential and show little fiscal or social stress. They have significantly fewer jobs per resident than central cities and diverse suburbs do, and job growth has been slow. But household incomes and home values are high enough to offset the lack of nonresidential property; typical local tax bases per capita are the highest of all the community types.

Social stress, as indicated by poverty rates, is also low in these areas, implying that they can provide high levels of local public services at relatively low tax rates. Predominantly white suburbs are the slowest growing suburban type on average, but they are not completely isolated from racial change; they show an increase in nonwhite shares second only to diverse suburbs. Not surprisingly, a typical community in this category is majority Republican. However, the balance in 2008 was closer than one might expect: 54% Republican and 46% Democratic.

**Exurbs**

The smallest suburban community type is the exurbs—places where less than 10% of land was urban in 2000. Although these largely outlying areas are the fastest growing type, they still represented only 10% of large metro populations in 2010, up slightly from 9% in 2000. These areas show some signs of fiscal stress, although not nearly to the same degree as predominantly nonwhite suburbs. Their tax bases are significantly lower than diverse or predominantly white suburbs are, making it difficult for them to finance all the costs of growth. They also show signs of rural poverty; their poverty rates are similar to diverse suburbs, but their income and home values are lower. In addition, they have by far the lowest number of jobs per capita of the community types (although jobs are growing relatively quickly) and are the areas hurt most
by high gas prices in recent years. Finally, exurban areas are the most Republican of the community types, with 61% of votes in 2008 going to Republican candidates.

Central Cities
With one-third of metropolitan populations, central cities have tremendous power as potential allies to some types of suburbs. They share many of the same vulnerabilities to racial discrimination with the older suburbs and, together with the diverse and predominantly nonwhite suburbs, would constitute two-thirds of regional populations and political strength. They are a heterogeneous group, ranging from relatively wealthy, whiter cities like Boston, Seattle, and San Francisco, to deeply segregated, nearly bankrupt cities such as Detroit, Milwaukee, and Cleveland. As a group, they have tax capacities that are close to the integrated and predominantly white suburbs and far above the nonwhite suburbs and exurbs. But they also have the highest poverty rates and lowest average incomes.

Central cities have greater potential for renewal than many suburbs do. Their historic role in metropolitan job and housing markets means that they have high-density central business districts, high-end housing neighborhoods, parks, cultural attractions, amenities, and public infrastructure that offset some of the disadvantages associated with the concentrations of poverty that emerged in the post–World War II period. This means that they are better positioned than many suburbs to deal with the effects of socioeconomic transition, whereas many fully developed suburbs that originally developed as bedroom communities are at a disadvantage because they tend to have little commercial—industrial tax base to offset the declining home values that often accompany socioeconomic transition.

Geographic Distribution of the Community Types
In most large metro areas, time-series maps of integrated neighborhoods reveal expanding rings of racial integration emanating outward, ahead of similarly expanding nonwhite core areas. Each decade, the ring of integration moves farther outward into inner and (sometimes) middle suburbs, and the expanding core of predominantly nonwhite areas grows to include larger portions of the central city and/or large parts of older suburbs, overtaking neighborhoods that were once integrated (G. Orfield & Lee, 2007). Integrated areas in turn are surrounded by an expanding, largely white peripheral ring at the edge of metropolitan settlement.

In most regions in 2000, inner suburbs surrounding central cities were a mix of integrated and predominantly nonwhite suburbs, interspersed with a few predominantly white areas. During the next 10 years, this halo of racially integrated and predominantly nonwhite areas moved outward into contiguous middle suburbs. At the same time, many inner suburban communities that were integrated in 2000 became predominantly nonwhite. Maps 3–8 show how this story played out, with variations on the overall theme, in three of the nation’s largest metropolitan areas: Chicago, New York, and Dallas.

In Chicago, by 2010 (Maps 3 and 4), a cluster of municipalities south of the central city that were predominantly nonwhite in 2000 expanded to include a significant number of nearby municipalities that were diverse in 2000. A similar pattern developed directly west of the city of Chicago, where a few integrated areas regressed and many predominantly white areas became diverse. Overall, the number of predominantly nonwhite communities increased by more than 70% in less than a decade, from 28 to 48, while the number of racially diverse areas increased by more than half, from 81 to 123.

Despite the fact that the metrowide, nonwhite share of the population increased by only 4 points, many Chicago metropolitan municipalities experienced rapid racial change during
the decade. The community of South Holland had clearly crossed a threshold of change by 2000; the nonwhite share of South Holland’s population increased by 26 percentage points in just 10 years, from 56% in 2000 to 82% in 2010. Two other nearby communities that were still predominantly white in 2000 moved very rapidly into the diverse category. Thornton went from 6% nonwhite in 2000 to 21% in 2010, while Lansing moved almost all the way through the “diverse” range in just 10 years, changing from 18% nonwhite in 2000 to 48% in 2010. Similar changes occurred in the inner western suburbs where, for instance, the nonwhite share went from 48% to 68% in Berkeley and from 57% to 75% in Hillside. Markham and Harvey, two communities that were already predominantly nonwhite in 2000, each continued racial transitions—from 84% to 90% nonwhite in Markham and from 94% to 96% nonwhite for Harvey—suggesting that the process may not stop until communities are virtually all nonwhite.
Although the changes were not as dramatic in the central part of the New York metropolitan area (Maps 5 and 6), a band of suburban racial change nearly surrounds the city of New York. The most pronounced changes were in New Jersey (west and southwest of New York and surrounding Newark) where several integrated areas transitioned to predominantly nonwhite and a substantial number of predominantly white municipalities became integrated. For instance, the nonwhite share of the population in Harrison town (bordering Newark) went from 53% in 2000 to 65% in 2010. And in neighboring Kearney, the nonwhite share increased from 40% to 51% (more than double the regional change from 46% to 51%). Parts of Long Island (east of the city) also showed clear signs of racial change; Oyster Bay, Huntington, and several other places made the transition from predominantly white to diverse.

The inner suburbs directly north of New York City show many newly integrated areas in 2010. Changes in this area were slower—Tuckahoe went from 30% to 33% nonwhite,
whereas Scarsdale went from 18% to 20%—suggesting some potential for stably integrated outcomes in the future.

Dallas shows the most dramatic pattern of racial change in its inner suburbs (Maps 7 and 8). This partially reflects the fact that metropolitan-level racial change was rapid in Dallas, where the nonwhite share of the population rose 9 points from 41% to 50%. However, the regionwide change does not explain all the local area trends. For instance, virtually the entire ring of inner suburbs along the southern and western borders of the city of Dallas made the transition from integrated to predominantly nonwhite. A string of municipalities in this part of the region went through dramatic change; nonwhite shares
went from 55% to 83% in DeSoto, from 49% to 74% in Cedar Hill, from 53% to 71% in Grand Prairie, and from 52% to 69% in Irving.

At the same time, a whole new band of suburbs north and northwest of the city went from predominantly white to diverse. North Richland Hills went from 17% nonwhite to 25%, Grapevine from 18% to 28%, and Flower Mound from 13% to 22%.

Opportunities and Challenges in Diverse Suburbs

The growing prevalence of racially diverse communities and neighborhoods in suburbs creates great potential for expanding the opportunities available to populations that have
long been limited to central city neighborhoods characterized by concentrated poverty and racial segregation. Potential benefits include better educational opportunities for children, better access to growing parts of regional job markets, and safer living environments. However, recent history shows that these areas are at risk. Many are following the same path seen in previous decades in the central city neighborhoods that current residents left to come to (then) greener suburban pastures.

**Opportunities**

In the new multiracial America, diverse suburbs now represent the best hope for realizing the dream of equal opportunity. The population of racially diverse suburbs in the 50 largest metropolitan areas is now greater than the combined population of the central cities in those metros. These integrated communities and neighborhoods offer the best chances to eliminate the racial disparities in economic opportunity that have persisted for decades by offering more equal access to good schools and a clear path to living-wage employment for all of their residents. They are the places where whites and nonwhites have the best relations and the most positive perceptions of one another.
Scholarly evidence on the benefits of school integration highlights the importance of integrated communities. The research literature documents that racial and economic segregation hurts children and that the potential positive effects of creating more integrated schools are broad and long lasting. It shows that integrated schools boost academic achievement (defined as test scores, attainment [years in school and number of degrees], and expectations), improve opportunities for students of color, and generate valuable social and economic benefits for all students.

Attending racially integrated schools and classrooms improves the academic achievement of minority students, measured by test scores (G. Borman & Dowling, 2006; K. Borman et al., 2004; Mickelson, 2003, 2006; Rumberger & Palardy, 2005). Since the research also shows that integrated schools do not lower test scores for white students, they are one of the very few strategies demonstrated to ease one of the most difficult public policy problems of our time: the racial achievement gap. Other academic benefits for minority students include completing more years of education and higher college attendance rates. Long-term economic benefits include a tendency to choose more lucrative occupations in which minorities are historically underrepresented (Ashenfelter,

Integrated schools also generate long-term social benefits for students. Students who experience interracial contact in integrated school settings are more likely to live, work, and attend college in more integrated settings (Braddock, Crain, & McPartland, 1984). Integrated classrooms improve the stability of interracial friendships and increase the likelihood of interracial friendships as adults (Hallinan & Williams, 1987; Kahlenberg, 2001). Both white and nonwhite students tend to have higher educational aspirations if they have cross-race friendships (Hallinan & Williams, 1990). Interracial contact in desegregated settings decreases racial prejudice among students and facilitates more positive interracial relations (Holme, Wells, & Revilla, 2005; Killen & McKown, 2005; Pettigrew & Tropp, 2006). Students who attend integrated schools report an increased sense of civic engagement compared with their segregated peers (Kurlaender & Yun, 2005).

Diverse suburbs recommend themselves in many other ways as well. In general, they show many fewer signs of social or economic stress than do central cities and predominantly nonwhite suburbs—the other community types with significant numbers of minority households. They offer higher incomes, lower poverty, better home values, and stronger local tax bases (Table 2). They also show many characteristics associated with economic and environmental sustainability. They are denser, more likely to be fully developed (and therefore more walkable) and located in central areas (offering better access to transit), and are home to more jobs per capita than predominantly white suburbs or exurbs (Table 1 and Maps 3–8). Additionally, revitalizing and redeveloping these communities through increased density, walkability, and transit is more environmentally sustainable than the all-too-common practice of abandoning these areas in favor of new, low-density, automobile-dependent communities built on greenfield land. Finally, diverse suburbs are politically mixed, providing the potential for meaningful political participation and limiting the risks associated with dominance by a single party.

The Challenge of Resegregation and Economic Decline

Diverse communities and neighborhoods also face serious challenges, both to their ability to provide livable environments in the present and to their continuing existence. Resegregation is the primary challenge facing many diverse areas. Many currently integrated areas are actually in the midst of social and economic change—change that is often very rapid. Integrated communities in the United States have a hard time staying integrated for more than 10 or 20 years, and many communities that were once integrated have now resegregated and are largely nonwhite. The process is driven by a wide variety of factors, including housing discrimination, inequitable school attendance policies, and racial preferences shaped by past and present discrimination.

Data for municipalities and census tracts clearly show the vulnerability of integrated neighborhoods to racial transition. Table 3 summarizes racial transition in municipalities in the 50 largest metropolitan areas between 2000 and 2010. In just 10 years, 160 of the 1,107 communities (16%) classified as diverse in 2000 made the transition to predominantly nonwhite. A similar percentage of predominantly white municipalities made the transition to diverse.

Neighborhood (census tract) data for a longer period provide better indicators of how vulnerable integrated areas are to racial transition. Table 4 summarizes the data for racial transition in census tracts in the 50 largest metropolitan areas for the period between 1980 and 2005–2009. It shows how neighborhoods of all types changed during the 1980s,
<table>
<thead>
<tr>
<th>2000 classification</th>
<th>2010 classification</th>
<th>Predominantly nonwhite</th>
<th>Diverse</th>
<th>Predominantly white</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly nonwhite</td>
<td>309 (99%)</td>
<td>3 (1%)</td>
<td>0 (0%)</td>
<td>312 (100%)</td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>160 (16%)</td>
<td>838 (82%)</td>
<td>19 (2%)</td>
<td>1,017 (100%)</td>
<td></td>
</tr>
<tr>
<td>Predominantly white</td>
<td>0 (0%)</td>
<td>527 (18%)</td>
<td>2,482 (82%)</td>
<td>3,009 (100%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>469</td>
<td>1,368</td>
<td>2,501</td>
<td>4,338</td>
<td></td>
</tr>
</tbody>
</table>

Sources: 2000 and 2010 Census of Population.

<table>
<thead>
<tr>
<th>1980 Classification</th>
<th>1990 Classification</th>
<th>Predominantly nonwhite</th>
<th>Diverse</th>
<th>Predominantly white</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly nonwhite</td>
<td>1,414 (96%)</td>
<td>57 (4%)</td>
<td>3 (0%)</td>
<td>1,474 (100%)</td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>727 (21%)</td>
<td>2,577 (74%)</td>
<td>181 (5%)</td>
<td>3,485 (100%)</td>
<td></td>
</tr>
<tr>
<td>Predominantly white</td>
<td>42 (0%)</td>
<td>2,547 (15%)</td>
<td>14,590 (85%)</td>
<td>17,179 (100%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,183 (10%)</td>
<td>5,181 (23%)</td>
<td>14,774 (67%)</td>
<td>22,138 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1980 Classification</th>
<th>2000 Classification</th>
<th>Predominantly nonwhite</th>
<th>Diverse</th>
<th>Predominantly white</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly nonwhite</td>
<td>1,408 (96%)</td>
<td>62 (4%)</td>
<td>3 (0%)</td>
<td>1,473 (100%)</td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1,716 (49%)</td>
<td>1,609 (46%)</td>
<td>154 (4%)</td>
<td>3,479 (100%)</td>
<td></td>
</tr>
<tr>
<td>Predominantly white</td>
<td>622 (4%)</td>
<td>5,358 (31%)</td>
<td>11,197 (65%)</td>
<td>17,177 (100%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,746 (17%)</td>
<td>7,029 (32%)</td>
<td>11,354 (51%)</td>
<td>22,129 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1980 Classification</th>
<th>2005–2009 Classification</th>
<th>Predominantly nonwhite</th>
<th>Diverse</th>
<th>Predominantly white</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominantly nonwhite</td>
<td>1,373 (93%)</td>
<td>97 (7%)</td>
<td>2 (0%)</td>
<td>1,472 (100%)</td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1,952 (56%)</td>
<td>1,391 (40%)</td>
<td>137 (4%)</td>
<td>3,480 (100%)</td>
<td></td>
</tr>
<tr>
<td>Predominantly white</td>
<td>1,372 (8%)</td>
<td>6,708 (39%)</td>
<td>9,090 (53%)</td>
<td>17,170 (100%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,697 (21%)</td>
<td>8,196 (37%)</td>
<td>9,229 (42%)</td>
<td>22,122 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

1990s, and 2000s. Neighborhoods that were integrated in 1980 were much less stable than predominantly white or predominantly nonwhite neighborhoods. More than a fifth (21%) of the census tracts that were integrated in 1980 had crossed the 60% threshold into the predominantly nonwhite category during the 1980s. Another 28% of them had made the transition by 2000 (more than doubling the total to 49%). By 2005–2009, 56% of the neighborhoods that had been integrated in 1980 had become predominantly nonwhite. Another 4% became predominantly white during the period, leaving only 40% of the 1980 integrated neighborhoods in the 2010 integrated category.19

The analysis also shows that once a neighborhood makes the transition to predominantly nonwhite, it is very likely to stay that way. Predominantly nonwhite neighborhoods were, by far, the most stable group; 93% of neighborhoods that were in this group in 1980 were still predominantly nonwhite 25 years later.20 This highlights how rare another often-cited risk to traditional minority neighborhoods—gentrification—actually is. Contrary to widespread fears of gentrification, the data clearly show that once a neighborhood becomes predominantly nonwhite, it virtually never reverts to predominantly white. Just two census tracts out of the nearly 1,500 that were predominantly nonwhite in 1980 became predominantly white in the next three decades, and only 7% of them became diverse. Similarly, only 4% of diverse neighborhoods became predominantly white during the same period. If gentrification involves bringing more middle-income family households into previously segregated neighborhoods, then metropolitan America actually needs much more gentrification, not less. Indeed, in most cases, it could just as aptly be called “urban racial reintegration” rather than “gentrification.”21

Table 5 shows how transition rates for diverse neighborhoods varied decade by decade. It shows the transition rates for suburban neighborhoods that were integrated at the beginning of each decade (rather than only those that were integrated in 1980). The results show that transition rates were high and relatively stable during the period; 20–30% of integrated neighborhoods resegregated every 10 years.22

Chart 2 shows how vulnerable integrated neighborhoods are to racial transition in another way. The chart shows how likely it was that a neighborhood that was integrated in 1980 would remain integrated, become predominantly nonwhite, or become predominantly white during the next 25–29 years as a function of its racial composition in 1980.23 Integrated neighborhoods with very modest nonwhite shares at the beginning of the period were highly vulnerable to change. In fact, any neighborhood with a nonwhite share greater than just 23% was more likely to become resegregated during the next 25

<table>
<thead>
<tr>
<th>Time period</th>
<th>Integrated tracts at beginning of period</th>
<th>Predominantly nonwhite</th>
<th>Diverse</th>
<th>Predominantly white</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980–1990</td>
<td>3,485</td>
<td>727 (21%)</td>
<td>2,577 (74%)</td>
<td>181 (5%)</td>
</tr>
<tr>
<td>1990–2000</td>
<td>5,258</td>
<td>1,578 (30%)</td>
<td>3,559 (68%)</td>
<td>121 (2%)</td>
</tr>
<tr>
<td>2000–2005/2009</td>
<td>7,315</td>
<td>1,114 (15%)</td>
<td>5,976 (82%)</td>
<td>225 (3%)</td>
</tr>
</tbody>
</table>

Sources: See Table 4.
years than to remain integrated. The likelihood that a neighborhood would resegregate rises steadily with the 1980 nonwhite share until roughly 85% of tracts with nonwhite shares in the high 50s in 1980 were predominantly nonwhite by 2005–2009.24

The Causes of Resegregation

The data show very clearly just how vulnerable diverse communities and neighborhoods are to resegregation. Designing policies to combat this instability requires an understanding of the causes. Resegregation is caused by racial discrimination in several forms: (1) housing and mortgage-lending discrimination,25 (2) exclusionary zoning, (3) racially biased school-boundary decisions, (4) disproportionate placement of government-subsidized affordable housing in segregated and unstably integrated neighborhoods, and (5) prejudice and preferences. All the practices listed in points 1–4 are common, even though they are prohibited by federal and state civil rights laws.

Housing Discrimination

Discrimination in housing and financing markets both excludes nonwhites from certain areas and creates extra costs for blacks and Hispanics in the form of greater length and breadth of housing searches (Yinger, 1995). Discriminatory practices give minority families fewer housing choices and reduce their ability to leverage themselves to live in newer, higher income communities.

Racial steering occurs when “housing providers direct prospective homebuyers interested in equivalent property to different areas according to their race.”26 Through steering, real estate agents limit the housing choices of nonwhite buyers disproportionately to unstably integrated or predominantly nonwhite neighborhoods and limit the choice of whites disproportionately to predominantly white neighborhoods.27

Recent studies document that significant levels of steering still occur in metropolitan housing markets and are likely increasing (Galster, 1990a, 1990b; National Fair Housing
The most extensive recent study (Turner et al., 2002) included 4,600 paired tests in 23 metropolitan areas. The study found statistically significant rates of steering in the homes that prospective buyers of different races were shown, in the frequency of home inspections for buyers of different races, and in the editorial comments regarding schools and other neighborhood characteristics made by realtors.

Audits conducted by the National Fair Housing Alliance in 12 metropolitan areas also show clear patterns of steering of middle- and upper-income nonwhite and white homebuyers. In these studies, black and Latino middle- and upper-income families were steered toward racially diverse suburban school attendance areas and told local schools were excellent. White families with similar incomes, credit histories, and backgrounds were told the same schools were not good and were steered toward much whiter school attendance areas that were not shown to the nonwhite homebuyers (National Fair Housing Alliance, 2007).

Research shows that private lenders continue to deny mortgages to potential minority homebuyers at disproportionate rates (Ross and Yinger (2003) and Apgar and Calder (2005)). Nationally, middle- and upper-income blacks are approximately 1.5–2.5 times more likely to be denied a mortgage than middle- and upper-income whites are. In fact, upper-income blacks (with 120% or more of metropolitan median income) are as likely to be denied a mortgage as lower-income whites (with less than 80% of metropolitan median income). Data for the Twin Cities show that loan-denial rates for the lowest-income whites (households with incomes less than $39,000 per year) were much lower than those for black applicants in any income category, including the highest (households with incomes greater than $157,000; Institute on Race and Poverty, 2009a; see Chart 3).

Subprime loans typically create greater risks and costs for borrowers because of higher interest rates and other disadvantageous (for borrowers) loan terms. The concentration of subprime lending activity is due to the targeted marketing of mortgages and the lack of traditional prime bank branch locations in predominantly nonwhite and racially transitioning neighborhoods (Apgar & Calder, 2005; Kim-Sung & Hermanson, 2003; Metzger, 2001). National studies also find racial disparities in subprime lending rates even when controlling for neighborhood and borrower characteristics, including individual credit factors (Bocian, Ernst, & Li, 2006; Boehm, Thistle, & Schlottman, 2006; Calem, Gillen, & Wachter, 2006; Courchane, Surette, & Zorn, 2004). Similarly, subprime lending rates in the Twin Cities were greater for blacks at all income levels than for the lowest-income whites. New research suggests that segregation, not credit rating or other financial factors, was the largest determinant of variations in subprime lending rates across the nation’s metropolitan areas when subprime lending was at its peak (Squires & Hydra, 2013). Segregation was also the primary predictor of foreclosures (Rugh & Massey, 2010). As a result, U.S. black and Hispanic borrowers are more than twice as likely as whites to have mortgages that are seriously delinquent or have completed foreclosure, according to recent research by the Center for Responsible Lending (Bocian & Querciaet, 2011).

Neighborhoods also experience racial discrimination. Nonwhite and integrated neighborhoods do not receive the level of prime credit commensurate with the income and credit histories of their residents. The redlining (or “pink-lining,” a less severe form of redlining) of these neighborhoods intensifies segregation and resegregation (Squires & Vélez, 1987). Data for the Twin Cities, for example, show that in predominantly white neighborhoods (with less than 30% people of color), 72% of all loan applications are made to prime home purchase lenders, compared to only 52% of applications in integrated neighborhoods (with 30–49% people of color) and 34% of applications in segregated
nonwhite neighborhoods (with 50% or more people of color). The differences are also evident for refinance applications (Institute on Race and Poverty, 2009a).

Exclusionary Zoning

Exclusionary zoning occurs when communities—through their zoning codes, development agreements, or development practices—do not allow for their fair share of the region’s affordable housing to be built. While exclusionary zoning has been declared unconstitutional in several states and is prohibited in others by legislation, it remains very common in predominantly white suburbs, and it intensifies both racial and social segregation (Rothwell & Massey, 2009, 2010). Recent research shows that local exclusionary land-use regulation practices—antidensity regulations in particular—played a large part in determining segregation levels and changes in the 50 largest metropolitan areas in the 1990s, accounting for as much as 35% of the difference between the most and least segregated metropolitan areas (Rothwell, 2011).

Discriminatory Local School Attendance Policies

Racial diversity in neighborhood schools almost always precedes racial diversity in neighborhoods. As schools become increasingly diverse in either racially diverse or predominantly white neighborhoods, white parents frequently seek attendance-boundary alterations, transfer policies, or new school buildings or additions allowing them to attend whiter schools. While these practices and policies can violate federal law, they are common, and there is little oversight.

These discriminatory educational practices result in predominantly nonwhite or unstably integrated schools in racially integrated or even predominantly white neighborhoods. Such schools intensify steering and mortgage-lending discrimination in relation to the school attendance area, accelerating resegregation. Recent national research found that local school boundaries created schools that were considerably more segregated than their neighborhoods. Had their boundaries more clearly reflected school capacity and neighborhood proximity, American schools would be 14–15% less segregated (Richards, 2012).

Discriminatory Placement of Low-Income Housing

The Fair Housing Act (FHA) forbids building a disproportionate share of low-income housing in poor-and-segregated or integrated-but-resegregating neighborhoods when it is possible to build that same housing in low-poverty, high-opportunity white or stably integrated neighborhoods. Yet, numerous recent studies demonstrate that federal, state, and local governments continue to build a disproportionate share of subsidized low-income housing in poor and predominantly minority neighborhoods. Where data are available on suburban placement, they show that a disproportionate share of low-income, subsidized housing is located in racially diverse suburbs, increasing the speed of resegregation (Dawkins, 2011; M. Orfield & Luce, 2009).

White Prejudice and Preferences

Conservative advocates argue that resegregation is the result of the preference of whites and nonwhites to live near people like themselves. However, surveys show that both whites and nonwhites express the desire to live in integrated neighborhoods, although some analysts question the strength of the preferences of whites, and others suggest that the commitment to
integration has declined for all races (Cashin, 2004; Charles, 2006; Emerson, Chai, & Yancey, 2001). In addition, an ideal integrated neighborhood for whites has a larger percentage of whites than the ideal neighborhoods of nonwhites do (Charles, 2003, 2005; Ihlanfeldt & Scafidi, 2004; Pattillo, 2005; Quillian, 2002). As a neighborhood becomes more racially diverse, the share of nonwhite residents reaches the point where whites no longer prefer the neighborhood well before it reaches the ideal point for potential nonwhite residents. Thus, at relatively low levels of diversity, even if whites and nonwhites are leaving the neighborhood at proportional rates as a result of normal housing turnover, replacement rates are likely to be heavily skewed toward nonwhite entrants to the neighborhood.

It is critical to understand that these preferences, for both whites and nonwhites, have been shaped by existing and past discrimination. It is likely that whites and nonwhites may feel uncomfortable living with each other because our segregated society has given us little experience of doing so. Moreover, nonwhites may not prefer to live in very white neighborhoods because they anticipate that discrimination of some kind by whites will lower their quality of life (Feagin, 1995). Because of both steering and segregated living patterns, there is asymmetry between whites and nonwhites in terms of information about neighborhoods. Nonwhites might seek whiter neighborhoods if they had better information on school poverty (quality) and the stability and equity growth of residential property values in whiter neighborhoods.

In contrast, whites may have low tolerance for diversity simply because of invidious racial bias that should not be sanctioned. Alternatively, practices such as steering, mortgage-lending discrimination, unfair subsidized housing placement, and discriminatory school-boundary drawing often place diverse neighborhoods in the midst of racial transition and disinvestment, which may also reduce whites’ tolerance for racial diversity. In the end, if discrimination was eliminated, or reduced, and integration could become both more common and more stable, it is likely that preferences would change and become more compatible.

**Strategies to Achieve Stably Integrated Suburbs**

Racial instability and resegregation are the dominant U.S. pattern. However, stable racial integration has been achieved by neighborhoods, cities, large urban counties, and even at metropolitan scales. Stable integration does not happen by accident, but is almost always the product of clear race-conscious strategies, hard work, and political collaboration among local governments. Stable integration measures work best when local, state, and federal governments and the private sector are cooperating with strong multiracial citizen involvement. There are a variety of concrete strategies that can foster residential stability in diverse communities.

**Local Stable Integration Plans**

Housing markets are regional, and housing discrimination operates on a regional scale. Hence, regional remedies to address housing discrimination are the most effective. Nevertheless, dozens of communities have created effective local stable integration plans. Case studies illustrate the potential value of proactive, multifaceted strategies (Nyden, Maly, & Lukehart, 1997). Such strategies can include:

- local fair-housing ordinances;
- public and private funding of pro-integrative home loan and insurance purchase programs;
cooperative efforts with local school districts to ensure high-quality, stably integrated schools;
• community safety programs in diverse neighborhoods;
• marketing efforts to encourage local chambers of commerce, rental property owners, and realtors to view diverse communities as potentially strong markets;
• public relations campaigns to encourage positive media stories of community successes;
• financial support of pro-integrative community-based organizations; and
• support of public forums to defuse racial misunderstanding and promote the value of integrated communities (Nyden et al., 1997).

Experience shows that such initiatives can be successful in suburbs as well as in central cities (the focus of Nyden et al., 1997). For example, Hanover Park, a western suburb of Chicago, went through rapid racial change in the early 2000s, going from 47% nonwhite in 2000 to 62% in 2010. In contrast, Oak Park, a community about 15 miles away that has a well-known stable integration program, showed much greater stability, with a nonwhite share that grew from 34% to 36% during the same period.

Similar contrasts can be seen in the Cleveland area. Two suburban areas without stable integration programs—Euclid and Maple Heights—each showed dramatic racial change between 2000 and 2010. The nonwhite share of the population increased by 23 points in Euclid (from 34% to 57%) and by 23 points in Maple Heights (from 49% to 72%). During the same period, two nearby communities with nationally recognized pro-integrative housing programs were much more stable. Shaker Heights went from 41% nonwhite to 46%, and Cleveland Heights went from 48% to 51%.

Civil Rights Enforcement
The most obvious way to promote integrated communities is through enforcement of the national FHA, which prohibits racial steering, mortgage-lending discrimination, and disproportionate building of subsidized housing in integrated communities.

Neighborhoods were once zoned by race, racially restrictive covenants kept neighborhoods rigidly segregated, real estate agent rules required racial steering in some areas, and the federal government endorsed the redlining of nonwhite and integrated neighborhoods. This sort of clear and overt discrimination is gone, and as a result, residential integration has improved slowly; however, less obvious and often covert racial discrimination in the housing market remains common.

One of the best ways to document modern housing discrimination is through paired testing. To do this, researchers assemble a large group of paired white and nonwhite testers of the housing market. Each pair of white and nonwhite testers has similar incomes, credit histories, education, and personal backgrounds. The testers are trained to approach and interact with real estate agents and banks in exactly the same manner. For example, both the white and nonwhite testers might ask a real estate agent to show them the best house, in the best neighborhood, with the best schools that they can afford. Illegal discrimination occurs when these paired testers are shown neighborhoods with different racial characteristics, receive different credit treatment, or are treated differently by sellers or rental agents. Without such paired testing, it is hard to detect, much less prove, such discrimination.

The U.S. Department of Housing and Urban Development (HUD), the federal agency charged with enforcing the FHA, is now conducting metropolitan-level, paired-testing steering studies to make sure that all parts of suburbia are open to nonwhite buyers, to
ensure that nonwhite buyers are not disproportionately steered toward racially diverse neighborhoods and school-attendance areas, and to confirm that white buyers are not steered away from these same areas to white neighborhoods. If and when evidence is found of steering or other housing discrimination, HUD and appropriate local authorities should take enforcement actions to ensure that such discrimination stops.

The government has been collecting mortgage data through the Home Mortgage and Disclosure Act for 40 years. It has revealed profound disparities in the treatment of white and nonwhite individuals, and among predominantly white, predominantly nonwhite, and integrated neighborhoods (Institute on Race and Poverty, 2009a, 2009b). The data suggest discrimination under the FHA, and federal, state, and local authorities have an obligation to take action.

HUD and state and local governments should also abide by the housing siting rules to ensure that new low-income housing is not sited disproportionately in racially integrated or transitioning areas. Whiter and more affluent developing suburbs should be prioritized for funding, and incentives should be created to encourage fairness and stable metropolitan-level integration.

Finally, local, state, and federal education authorities have an obligation to ensure that local school-district-boundary decisions, school-transfer policies, and capital decisions are fair under Titles II and VI of the 1964 Civil Rights Act and under state and federal constitutions.

**State and Metropolitan Actions Against Exclusionary Zoning**

Some states, either by legislative or judicial action, require all communities to provide for their fair share of affordable housing. Oregon and its largest metropolitan area, Portland, provide excellent examples of state- and metropolitan-level actions that promote and maintain integrated communities. At the state level, Oregon’s Land Use and Development Commission Goal 10, promulgated in 1973, requires that regional and local comprehensive plans “encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.”

At the regional level, the Portland metropolitan area’s regional planning policies have helped reduce segregation by encouraging all developing communities to provide for their fair share of affordable housing. The area has a strong regional planning agency (Portland Metro) that enforces a regional growth boundary designed to focus new development in core areas. Research for the 1990s shows that the most common measure of black–white segregation—the dissimilarity index—declined more rapidly in regions with growth-containment policies. Black–white racial segregation has in fact decreased in the Portland region; it is now one of the nation’s least segregated metropolitan areas (Nelson & Wachter, 2003; Swanstrom, Casey, Flack, & Dreier, 2004).

Similarly, Montgomery County, Maryland, provides the best example of pro-integrative policies at the county scale. Thirty years ago, the county—a wealthy suburban area directly northwest of Washington, DC—adopted its Moderately Priced Dwelling Unit program (Brown, 2001; Rusk, 2000). The program requires that any new housing development of 50 or more units set aside 12.5–15% of the units for households earning 65% or less of the regional median income.

Nonwhites have been the primary beneficiaries of the Montgomery County program. As of the late 1990s, people of color occupied 80% of the new public-housing rental units,
and from 1991 to 1998, people of color accounted for approximately 55% of the purchasers of moderately priced dwelling units (Roisman, 2001). At the same time, and at least partly as a result of these proactive housing policies, Montgomery County schools have made enormous strides in reducing the educational achievement gap between poor nonwhites and affluent whites (Schwartz, 2010).

In New Jersey, where the state supreme court declared in the *Mount Laurel* cases that every city in a metropolitan region has an obligation to provide for its fair share of affordable housing, research has found gains in educational achievement, health, and many other benefits for low-income nonwhite families moving to affordable housing in white affluent suburbia (Massey, Albright, Casciano, Derickson, & Kinsey, 2013).

**Metropolitan School Integration Strategies**

The Supreme Court’s 1974 decision in *Milliken v. Bradley* stopped most school integration plans at the borders of a local school district. After *Milliken*, most school desegregation efforts were only temporarily successful, if not counterproductive, because they tended to encourage white flight to adjacent, whiter school districts.

Despite *Milliken*, metropolitan-level integration plans were implemented in 15 metropolitan areas in the 1970s and 1980s. The majority of these plans occurred in the border states and the Southeast. While hardly a liberal bastion historically, this part of the country proved to be more racially progressive than either the Deep South or the highly fragmented and segregated North. Practical political, business, and religious leaders in several border states sought to avoid the trauma of a drawn-out racial struggle by designing sustainable integration plans. Many also had the advantage of a less fragmented structure of local government. In most cases, it was possible to use relatively large countywide school districts encompassing all or most of the relevant housing market as the vehicle for integration efforts.

The availability of a metropolitan option in these areas increased the chances that the resulting integration would be long lasting. The inclusion of most of white suburbia in the plans meant that all schools in a large area, although integrated, would be majority white and middle class, and academically strong. Moreover, by including all metropolitan schools, whites had nowhere to flee except private schools—a prohibitively expensive option for most middle-class households. In the metro integration areas, private school attendance was no greater than the national average.

Forty years of history and data demonstrate that integrated neighborhoods in regions with large-scale, metrowide school integration plans were much more stable than in metropolitan areas without such plans (M. Orfield & Luce, 2005). Chart 2 shows that in areas without metro school integration, census tracts that were more than 23% nonwhite in 1980 were more likely to become majority nonwhite than remain integrated. In these areas, neighborhoods that were between 30% and 60% nonwhite had very little chance of remaining integrated. For example, neighborhoods that were 50% nonwhite had an 85% chance of becoming 60% nonwhite by 2009.

Chart 3 shows the same relationship—the likelihood that a neighborhood would remain integrated between 1980 and 2005–2009 or resegregate as a function of its racial composition in 1980—for the 15 metropolitan areas that had large-scale school integration plans. In contrast with the results for metros with no such plans, integrated neighborhoods in regions with metro (or nearly metro-scale) school integration plans were much more stable. Neighborhoods between 20% and 33% nonwhite were much more likely (between 55% and 65% likely) to remain integrated than to resegregate. And neighborhoods
between 33% and 50% nonwhite had a roughly 50% chance of remaining stably integrated over 25 years.35

The most commonly cited example of a large-scale desegregation plan still in existence illustrates these results very well. Raleigh (Wake County), North Carolina, which implemented metropolitan-level desegregation of its schools in the 1970s, not only has schools that rank among the nation’s most integrated, but its neighborhoods are also among the least segregated. It has also been one of the fastest growing metros in the country.

Schools move through racial transition earlier, faster, and often more completely than neighborhoods do. Unless there is a very powerful mobilization on the housing front, racially diverse suburbs need regional plans for schools if they are to avoid resegregation because most white and middle-class families are not going to buy homes in areas with largely nonwhite, unstable, and increasingly poor schools.

**Conclusion**

More than half of suburban residents in America’s largest metropolitan areas live in places that are threatened economically because of unredressed housing discrimination and the resulting resegregation. In these communities, homeowners and business owners alike lose equity every year because these laws are not enforced. These communities that were built at great public expense will unnecessarily become blighted and abandoned, and citizens will be taxed to create new communities of escape. Rather than becoming America’s most expensive disposable product, these communities should be recycled, renewed, and redeveloped. As the largest suburban block of voters—and the most politically volatile—diverse suburbs should be able to command the attention of political leaders and policy makers. These communities, in combination with central cities and predominantly nonwhite suburbs (which have many common interests), have the metro majority of local officials, legislators, and members of Congress and therefore should be able to ensure the enforcement of existing laws and the creation of new laws necessary to stabilize neighborhoods and schools in metro America. All of these types of communities are hurt by current patterns of housing discrimination and resegregation. Together they could form a majority political coalition to advance these reforms.

Chart 3. The status in 2005–2009 of diverse neighborhoods from 1980’s 15 metropolitan areas with regional school integration strategies (539 census tracts that were integrated in 1980).

---

28 M. Orfield and T.F. Luce
The largest barriers to change are inadequate enforcement of existing laws, especially the FHA, and lack of understanding of the costs of segregation and the benefits of integration. A number of studies and hearings have documented the ongoing prevalence of discriminatory behavior in housing markets (National Fair Housing Alliance, 2006, 2007; Turner et al., 2002) and lack of enforcement of existing laws (National Commission on Fair Housing and Equal Opportunity, 2008). In addition to the strategies described in the previous section, stricter enforcement of the obligation (spelled out in the FHA) of the federal government and all of its programs to proactively “affirmatively further fair housing” could go far to stabilize integrated communities and neighborhoods.

In addition, the general public, particularly the politically pivotal diverse suburbs and their elected officials, simply do not understand the dire consequences of resegregation or the clear benefits that strong fair-housing policies provide to their communities. Thus, it is important to begin large public education efforts to help the integrated suburbs understand what is happening to them and how many communities are in a similar position. These efforts would explain that stronger fair-housing policies would strengthen their residential market, increase prime low-cost credit, stabilize their schools, and allow strong potential for redevelopment. At present, many in these areas think just the opposite; they incorrectly believe that fair housing will increase the speed and severity of the already occurring resegregation and decline.

A key to stability, or transition, is what residents and potential residents think the future of a community will be. Many whites are perfectly willing to live in a diverse community but do not want to be in a predominantly nonwhite community or a community that shows clear signs of economic and social decline. Similarly, they are very willing to have their kids go to a diverse school but not to one that has resegregated or is in the process of rapid transition.

Most currently diverse communities are in the process of resegregation but have no real plans to do anything about it. Diverse suburban communities need technical support (because they have very limited staff and knowledge) to help them deal with their housing and school issues and, if possible, financial support to implement their plans. The truth is that most diverse suburbs have no idea of how to address resegregation, and they have no external framework of advice and support. A federal or state initiative of school and housing agencies to support stable and successful diversity in suburban communities would be very well received. If this initiative was managed as a purely voluntary process, then it would be a political advantage rather than a cost.

Because the diverse suburbs do not realize how many communities are in a similar situation, they are more likely to avoid discussing the issue of resegregation for fear that calling attention to the problems may make them worse. But if public education efforts made diverse suburbs aware that resegregation is common, they could then cooperate with the large number of similarly affected communities and develop political and reform efforts.

Existing membership organizations for municipalities, such as the League of Cities, involve all types of cities and suburbs, rich and poor, white and nonwhite. As voluntary membership organizations, they risk losing members who disagree with their actions. Thus, they are consensus and status quo oriented and may be unlikely to take any strong position on the issues necessary for suburban stability. Given this reality, the diverse suburbs must form their own organizations, support them with dues, and seek government and private grants to fund their reform efforts. Once created, these organizations should use their political power, in every way they can, at the state and federal levels to ensure that current laws are enforced or changed to support their stability and redevelopment.
Some relatively new organizations of older suburbs exist—in Ohio, Michigan, and New Jersey, for instance—but this process needs to accelerate.

Metropolitan America is at a crossroads. The places in the country that have worked to create stable integration have been rewarded for their efforts. Louisville, Raleigh, Portland, and Montgomery County not only are some of the most desirable places to live for people of all races in the United States but also have strong, resilient economies. If racially diverse suburbs can become politically organized and exercise the power of their numbers—in their own self-interest—they can help ensure both the stability of their communities and the future opportunity and prosperity of a multiracial metropolitan America.

Notes
1. The terms integrated and racially diverse will both be used to describe municipalities and neighborhoods with nonwhite population shares between 20% and 60%. At the municipal scale, this broad measure may mask segregation at smaller scales, undermining the use of the term integrated. However, the municipality is also the dominant scale for the local housing and land-use policy making that is most likely to affect integration and segregation rates. School policy (through school districts) is also often pursued roughly at this scale. Thus, whereas many of these municipalities are likely to be segregated at neighborhood scales, policy-making institutions—city councils or school boards, for instance—are much more likely to be integrated. In addition, if a municipality meets the criterion, this means that local policy institutions exist at a scale large enough to fruitfully pursue integrative policies. The use of the term at the neighborhood scale, defined as a census tract for the purposes of this work, is much less problematic, as census tracts are generally much smaller than municipalities.
2. For the purpose of this study, predominantly nonwhite is defined as more than 60% nonwhite.
3. In part because there is no equivalent to Home Mortgage Disclosure Act data for insurance, far less is known about insurance than mortgage lending (see Squires & O’Connor, 2001).
4. Residents of these metro areas composed 55% of the nation’s population in 2010. The large metros were 37% nonwhite, compared to 36% in the United States as a whole. The suburbs of the large metros closely mirrored the racial diversity of the nation, with 11% non-Hispanic blacks (compared to 12% nationwide), 17% Hispanics (compared to 16% nationwide), and 9% other nonwhite (compared to 8% nationwide). Population growth patterns were also similar. The large metros grew by 8% from 2000 to 2010, compared to 10% in the country as a whole, and the nonwhite population in the metros grew by 7 percentage points compared to 5 points nationally. Unincorporated areas were included in the typology, with the unincorporated area of a single county treated as a municipality. See note 1.
5. There are no clear-cut ways to define a “diverse” neighborhood. The lower bound of this range is meant to represent the threshold beyond which racial or economic diversity begins to significantly affect location decisions, especially for white households. The literature provides many varied estimates of this; Galster (2010) cites 20% as a reasonable estimate. The upper bound—60%—is in the range where few whites expressed a willingness to move into a neighborhood in the preference testing reported by Charles (2005).
6. See Fasenfest, Booza, and Metzger (2004) for a good example. See M. Orfield and Luce (2010, Chapter 3 and Appendices A and B) for an analysis of the Twin Cities using a 12-category racial typology based on Fasenfest et al., and tables describing the distribution of the neighborhood types in the 25 largest metropolitan areas.
7. The majority of the municipalities designated as exurban (84%) would have been classified as predominantly white in 2010 if classified by race with the other municipalities.
8. Population shares and changes are similar using census tract data to classify neighborhoods rather than municipalities. The percentage of suburban population in predominantly white and exurban tracts went from 51% to 39% between 2000 and 2010. The share in predominantly nonwhite tracts went from 12% to 17% and from 38% to 44% in diverse tracts.
9. Note that this calculation differs from the changes shown in Chart 1. Changes in Chart 1 reflect changes in the number and composition of each community type in the two years; diverse suburbs in 2000 represent a different group of places than diverse suburbs in 2010 do. The calculation in Table 1, however, isolates the change in the places that were a particular group in
2010 to highlight the relative strengths or weaknesses of the community types as they were composed in 2010. Job growth rates in Table 1 were calculated in the same way.

10. The measures in Table 2 are compared to metropolitan averages to control for very wide variations at the metropolitan level among the 50 largest metros. For instance, the nonwhite share of population in the late 2000s varies from just 12% in the Pittsburgh metropolitan area to 67% in the Los Angeles metropolitan area. Tax base, poverty, income, and home value data also vary dramatically from metro to metro.

11. Tax capacity measures a community’s ability to raise revenues from its tax base with typical tax rates (by each region’s standards). Tax capacity data were available for 43 of the 50 largest metropolitan areas. The excluded areas are Baltimore, Maryland; Birmingham, Alabama; Kansas City, Missouri; New Orleans, Louisiana; Providence, Rhode Island; St. Louis, Missouri; and Washington, DC. The tax capacity measure included local property, sales, and income taxes. Where more than one tax is used, the measure was calculated as the revenue forthcoming from each tax if the average regional tax rate was applied to the actual local tax base.

12. Table 2 shows racial shares compared to metropolitan averages to control for the very wide variation in racial mixes at the metropolitan level among the 50 largest metros. The nonwhite share of population in 2005–2009 varies from just 12% in the Pittsburgh metropolitan area to 67% in the Los Angeles metropolitan area.

13. The relative nonwhite shares were calculated in both years based on how communities were classified in 2010. The cited change therefore represents growing nonwhite shares during the decade in communities classified as diverse at the end of the period.

14. The political data include 43 of the 50 largest metropolitan areas where local area election data were available.

15. The nonwhite share of the population increased from 41% in 2000 to 45% in 2010.

16. The results are similar for different types of diverse communities. Seventeen percent of diverse municipalities where black or Hispanic residents represented the largest nonwhite group made the transition to predominantly nonwhite during the decade. Asian- or other-dominated places were a bit more stable: 11% made the transition. The percentages that remained diverse were 79% (black share greatest), 84% (Hispanic), and 88% (Asian or other), compared to 82% for the nondifferentiated grouping shown in Table 3.

17. Table 1 does not show exurbs. Since exurbs are defined by urbanization rate in 2000 in both years—2010 urbanization data are not yet available—none made the transition to another classification during the period.

18. The most recent data with census tracts boundaries consistent with earlier years are from the Census American Community Survey, which reports averages for the period from 2005 to 2009 for census tracts. Census tracts in the more recent 2006–2010 data are not contiguous with earlier years and cannot be used for this comparison.

19. Differences between these findings and the results for diverse tracts that are differentiated by the dominant nonwhite category differ a bit from those found in the municipality-level data. At the tract level, diverse neighborhoods where Hispanics dominated were much more likely to make the transition to predominantly nonwhite than either black- or Asian-dominant tracts. Between 1980 and 2005–2009, 84% of Hispanic-dominant diverse tracts made the transition, compared to 59% of black-dominant tracts and 50% of Asian- or other-dominant tracts. The most likely explanation is the rapid growth in Hispanic populations in many metropolitan areas.

20. The percentage was even higher in central cities; 94% of 3,647 census tracts that were predominantly nonwhite in central cities in 1980 were still nonwhite in 2005–2009. By 2005–2009, central cities had 5,876 census tracts qualifying as predominantly nonwhite, compared to 4,697 in suburbs. At the same time, they had only 3,426 diverse tracts compared to 8,196 in suburbs.

21. At the same time, there are a few significant cases (at least in large cities such as New York; San Francisco; Washington, DC; and Chicago) where the racial compositions of traditionally black neighborhoods have become whiter and, if not predominantly white, different enough to create real animosities. See, generally, Norris (2011) and McCall (2004).

22. Asian- or other-dominant diverse tracts were the most stable in all three decades. Resegregation rates were 8%, 16%, and 4% for Asian/other-dominant tracts compared to 37%, 53%, and 41% for black-dominant diverse tracts and 58%, 74%, and 47% for Hispanic-dominant tracts.
23. The lines are smoothed by taking 5 percentage point moving averages. M. Orfield and Luce (2010) report similar findings for a variety of integrated neighborhood types using a more complex neighborhood classification scheme for the period from 1980 to 2000. Much like Chart 1, the analysis revealed turnover points for each of the integrated types at very modest nonwhite shares. (Turnover points are the minority share in a neighborhood at which it becomes more likely than not that the neighborhood will resegregate.) The analysis shows turnover points between 24% and 38% for nonwhite, depending on the type of neighborhood. Neighborhoods that were white–Hispanic integrated in 1980 were more likely to resegregate by 2000 than to remain integrated if their Hispanic share exceeded 24%. The corresponding percentages for white–black or multiethnic integrated neighborhoods were 30% and 38%, respectively.

24. When limited to 3,270 integrated suburban tracts in 1980, Chart 1 is essentially unchanged.

25. There is also growing evidence of housing discrimination that occurs via the Internet. See Friedman and Squires (2010).


27. CFR Part 14, § 100.70 (a); see also Galster (2005, p. 253).

28. Oliver and Shapiro (1995) suggest that racial discrepancies in mortgage rejection rates emanate from the fact that “loan officers were far more likely to overlook flaws in the credit scores of white applicants or to arrange creative financing for them than they were in the case of black applicants” (p. 139).

29. In 2010, the home-purchase-denial rate for upper-income blacks was 21.6% compared to 9.9% for upper-income whites and 21.5% for low- to lower-middle-income whites. For refinances, 30.1% of upper-income blacks were denied compared to 15.2% of upper-income whites and 25.9% of low- and lower-middle-income whites. Calculations are from the 2005 and 2010 Home Mortgage Disclosure Act National Aggregate Reports, Tables 5-2 and 5-3, available at http://www.ffiec.gov/hmdaadwebreport/NatAggWelcome.aspx.

30. See M. Orfield and Luce (2009) for a description of the use of a discontinuous boundary in a Twin Cities school district that served this purpose.


35. When limited to 369 integrated census tracts in the suburbs of metro-plan metros or to the period from 1980 to 2000, the results are similar. The findings are also not the result of demographic differences between the two groups. The metro-plan regions were a bit more white in 1980, with a white share roughly 6 percentage points greater than in the other metros (82% versus 76%), but demographic changes were virtually identical over the period (the white share declined by 16 points in the metro-plan metros and by 18 points in the others). The results are also very similar for the time period between 1980 and 2000, the period when most of the plans were in effect. Finally, statistical analysis shows that the relationship between metro-scale integration plans and greater stability in integrated neighborhoods remains when controlling for factors other than the initial racial mix. Location in a metropolitan area with a large-scale plan remains positively associated (at the 99% confidence level) with the likelihood that a tract would remain integrated between 1980 and 2005–2009 in a logit regression, which controls for beginning-of-period racial mix in census tracts, beginning-of-period racial mix in metropolitan areas, racial change at the metropolitan level, total metropolitan population, and population growth at the tract level. This is the result whether the regression includes only the metro-plan metropolitan areas included in the 50 largest metropolitan areas or all 15 metro-plan metros.

Notes on contributors
Myron Orfield has a JD from the University of Chicago. He has written extensively on metropolitan growth, regional planning, fair housing, and other issues associated with regional equity. A former legislator, he was chief author of the Metropolitan Reorganization of 1994, which transformed the Twin Cities Metropolitan Council into the most significant regional government in the U.S.
Thomas Luce has a PhD in public policy analysis from the University of Pennsylvania. His research focuses on metropolitan development, regional planning, and state and local tax policy. Most recently, he co-authored (with Myron Orfield) Region: Planning the Future of the Twin Cities, a book on development and planning issues in the Minneapolis-St. Paul metropolitan area.

References


