# Does Neotraditional Development Build Community?

*Jack L. Nasar*

**Abstract**

Neotraditional development has captured the attention of planners, architects, and developers. The various kinds of development under this label claim to replace the traditional auto-dependent suburb with pedestrian-oriented mixed-use development that builds sense of community. The present study tests two claims of neotraditional plans. In a community having a traditional suburb and nearby a traditional small-town center, on which neotraditional development is modeled, interviewers surveyed 120 residents—60 from each area. The analyses compared measures of sense of community, auto use, and reasons the residents chose to live in each area. The results support the claim that higher density mixed-use developments have lower auto use, but they failed to show that this form of development or the reduced use of autos translates into increased sense of community.

***Keywords:*** *Neotraditional development; sense of community; traditional suburbs; auto use*

***Jack L. Nasar***, a professor of city and regional planning at The Ohio State University, is editor of the *Journal of Planning Literature*. Recent books include *The Evaluative Image of the City* and *Design by Competition: Making Design Competitions Work*.

Following the founding of Seaside, Florida, in 1983, a movement in planning, architecture, and real estate has spread in the United States to build towns and suburbs in ways common prior to World War II. Many planners and architects searching for an alternative to the auto-dependent North American suburb have rediscovered town planning principles from the past and adapted them to the present. This alternative to post–World War II suburbs has come to be known as neotraditional town planning.

The term *neotraditional development* (NTD) encompasses various development concepts that have characteristics such as pedestrian orientation, higher residential densities than typical suburbs, and the accommodation of retail and office uses (Calthorpe 1993; Duany and Plater-Zyberk 1992; Fulton 1992; MacBurnie 1992). The ideal neotraditional town would be a self-contained, tightly clustered, walkable village, patterned on the American small town of pre–World War II. It would have a mixed-use core of residential, commercial, and civic uses within a quarter mile (five-minute walk) from most houses, as well as street patterns that allow drivers and pedestrians a variety of path options that encourage people to walk from place to place, higher densities than a typical suburb, a distinct (traditional or regional) architectural character, and the encouragement of street life through such features as narrower streets, front porches, and public open space (Audirac and Shermyen 1994; Christoforidis 1994; Duany and Plater-Zyberk 1992; Lerner-Lam et al. 1992; Sutro 1990). Some architects have criticized the aesthetic character of such developments as nostalgic to a way of life that many never experienced. Their focus on nostalgic imagery overlooks its intended social goals. Advocates of neotraditional development claim that these forms of development replace the isolation of the suburbs with a sense of community (Bookout 1992a).

*Sense of community* refers to the feeling an individual has about belonging to a group. Individuals can have a sense of community in relation to a geographically defined territory such as their neighborhood or in relation to an aspatial or extended-space community such as a professional group (Lyon 1987). Researchers refer to the first as a *community of place* and the second as a *community of interest* (McMillan and Chavis 1986). The concerns of critics and planners often deal with community of place—the strength of attachment individuals feel to their communities or neighborhoods. It is a

*Journal of Planning Education and Research* 23:58-68
DOI: 10.1177/0739456X03256224

psychological construct experienced as an abstract concept in the human mind (cf. Cochrun 1994; Nasar and Julian 1994). Why does it matter? For residents and neighborhoods, the sense of community of place represents an indication of the strength of social ties and personal networks among neighbors. These networks and ties represent a form of social capital, which can offer emotional aid, social support, companionship, and services that support a household and the neighborhood (Wellman and Wortley 1990). Design professionals and others critique the traditional suburb as isolating individuals and lacking community and social support. They offer new forms of development to overcome these assumed problems and to bring residents together.

NTD represents the latest in a series of suburban planning concepts—such as Perry's ([1929] 1974) neighborhood unit, the Garden City (Howard [1898] 1947), superblocks, (Stein 1957), greenbelt towns (Stein 1957), and planned unit development (Bookout 1992b)—aimed in part at enhancing sense of community. NTD stands apart from these earlier concepts in its match to real estate and market demands. NDTs have become a market success. Delsohn (1994) reports more than 100 towns covering more than 100,000 acres planned and built according to neotraditionalist ideas. Although this represents a fraction of new development, communities and developers continue to embrace various aspects of NTD. Advocates of this idea argue that it will guide suburban development in the United States into the future (Calthorpe 1993; Duany and Plater-Zyberk 1992; Krieger and Lennertz 1991; Knack 1989). They criticize the traditional suburb as serving the automobile at the expense of the pedestrian. They see it as consuming land with detached single-family homes on large lots and leaving most destinations so far away, residents must drive. In the United States, total vehicle miles increased by 41 percent between 1983 and 1990 (U.S. Department of Transportation 1991), and U.S. citizens make roughly 86 percent of their trips by car. Reliance on autos makes the United States a leading consumer of fossil fuels. NTD advocates claim that NTDs can reduce auto use, thus reducing congestion, energy use, and pollution. The one study that directly tested this hypothesis about auto use found little effect of land use on travel behavior (Crane and Crepeau 1998). NTD advocates also claim that the reliance on autos detracts from the sense of community that would occur if residents walked more.

Research suggests that suburban residents may have a greater sense of community than the critics allow. One national survey found that two-thirds of Americans socialize with neighbors and that 50 percent of Americans spend an evening with neighbors several times a month (Rubenstein 1993). A study of 680 residents in eighty-one neighborhoods in Nashville, Tennessee, also found high levels of neighboring. Campbell and Lee (1992) surveyed wholly residential blocks—single-family houses, excluding blocks with nonresidential uses, apartments, and condos—in Nashville. The results revealed that the suburban residents knew on average fifteen neighbors by name and regularly spent time with half of them.

Planners need to test the assumed benefits of NTD. Recall that advocates of new urbanism claim that NTD reduces auto use and increases sense of community (Calthorpe 1993; Duany and Plater-Zyberk 1992; Krieger and Lennertz 1991). Therefore, it makes sense to ask the following questions:

1. Do residents of a neighborhood with a neotraditional character show lower levels of auto use than residents of a traditional suburb?
2. Do they have a higher sense of community than residents of a traditional suburb? If so, did residents choose the neotraditional area in pursuit of community, or did the physical arrangements build the sense of community?

## ► The Neighborhood Tested

The present research used a small traditional town (similar to those on which NTD is modeled) as a stand-in for an NTD. Westerville, Ohio, founded in 1858, was a small rural town prior to becoming a suburb for Columbus, Ohio. Just as Westerville touches the suburban fringe of Columbus, many neotraditional neighborhoods are built on the suburban fringe of larger cities. Westerville experienced high growth and development after World War II. Figures 1 and 2 show the percentage of housing built before 1940 and between 1985 and 1990, respectively. Before World War II, Westerville had a central mixed-use urban core, similar to neotraditional development. The core appears in the top left corner of Figure 1 as the darker areas on either side of North State Street, left of center. About 23 percent of the housing units were built before 1940, and 44 percent were built between the 1940s and 1970s. Westerville also has a larger area of newer traditional suburban development that started to develop in the 1960s but had most of its development after 1980. In Figure 2, the darker area on the right shows the intense area of new development between 1985 and 1990.

Elmer and Way (1991) developed a Geographical Information Systems (GIS) map that depicts, for any location in Westerville, the number of different land uses within a quarter mile of that location. The map was used to select the two research areas—one with low land-use diversity and the other with high land-use diversity. The low land-use diversity area had only housing or housing plus park space within a quarter mile of any location, and the high land-use diversity area had

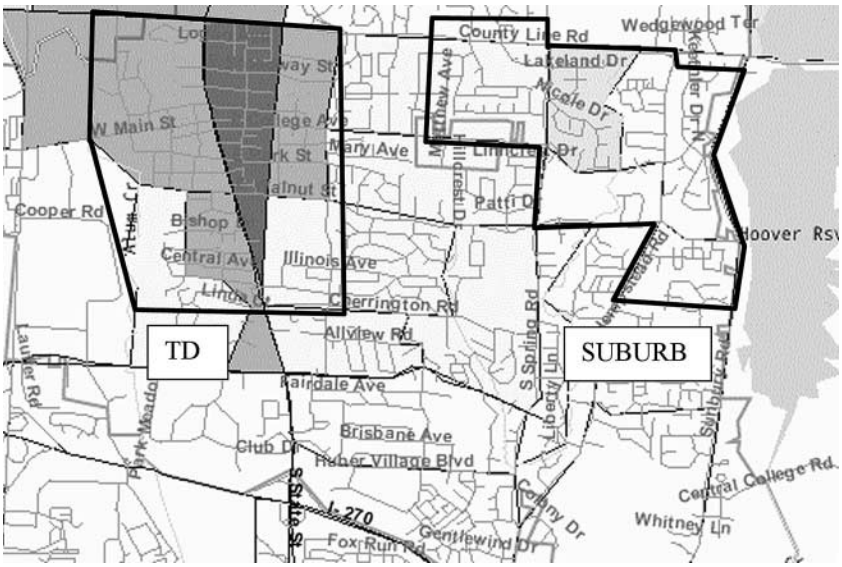


***Figure 1.*** *Percentage of housing units built before 1940 (shades go from 0 to 1.9 percent* = lightest *to 62.2 percent* = darkest*). Traditional development (TD, left) has a higher percentage of the older units than does SUBURB (right).*
Source: U.S. Census Bureau (1990).

four different uses—residential (single or multifamily), mixed urban/commercial, institutional (schools), and recreation (parks)—within a quarter mile of any location. The rest of this article refers to the low land-use diversity area as SUBURB and the high land-use diversity area as traditional development (TD). Each area consisted primarily of single-family units, but the TD area (similar to NTDs) had more multifamily units. Figures 3 and 4 show land-use maps of each area, and Figures 5 and 6 show photos of each area. As you can see, TD has a greater housing density, mix of uses, smaller lots, and houses closer to one another and the street than does SUBURB. TD has more public open space in parks and a university campus not present in SUBURB. Unlike many suburbs, SUBURB has sidewalks along some streets.

Figures 7 and 8 map the multiple-unit and single-unit detached housing in each area. You can see that TD has a higher percentage of units in structures with ten units or more (Figure 7) and that SUBURB has a higher percentage of one-unit detached housing (Figure 8). In sum, for purposes of comparison, Westerville has neighboring developments similar to both a neotraditional development and a traditional suburb.

## ▶ Instrument

The survey obtained information about (1) sense of community, (2) auto use, (3) the reasons the respondent chose the neighborhood, and (4) the demographics of the respondents (the appendix displays the full instrument). For sense of community, the study used the 15-item version of the Nasar and Julian (1994) Neighborhood Sense of Community (NSOC) scale. For each item on this Likert-type scale, respondents report their level of agreement (*strongly agree*, *agree*, *neutral*, *disagree*, and *strongly disagree*) with it. The scale has several items (2, 5, 7, 8, 9, and 11) that directly assess the support of social capital. For example, it asks for the respondent's level of agreement with the following: "If I had an emergency, even people I do not know in this neighborhood would be willing to help." In the present study, the 15-item NSOC scale proved reliable across the ninety-one respondents (Cronbach's alpha = 0.90).

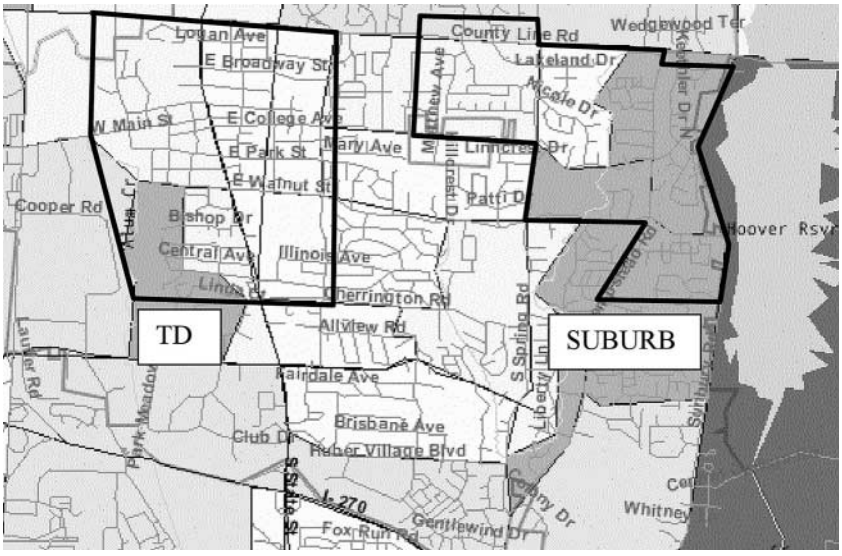


***Figure 2.*** *Percentage of housing units built between 1985 and 1990 (shades go from 0 to 4.5 percent* = lightest *to 58.6 to 74.5 percent* = darkest*). SUBURB has a higher percentage of the newer units than does traditional development (TD).*
Source: U.S. Census Bureau (1990).

The auto use scale is a variation on a scale in Appleyard's (1981) neighborhood survey. In the present study, the respondents were asked, "In the last month you have lived here, how often do you use your automobile to go to the following places?" For each of six destinations listed separately (neighborhood park, grocery store, any other shopping area, visit friends, library, and post office), respondents could check the following: *never* (1), *a few times* (2), *sometimes* (3), *most of the time* (4), and *all of the time* (5).

To find out why respondents chose their neighborhood, the survey asked the following: "Please describe the reasons why you chose to live here." This scale was included to test whether respondents in each area had chosen to live there for different reasons. In particular, if the results showed a difference in sense of community or auto use across the areas, it would help to know whether respondents had chosen those areas to get that quality or whether they chose the areas for similar reasons.

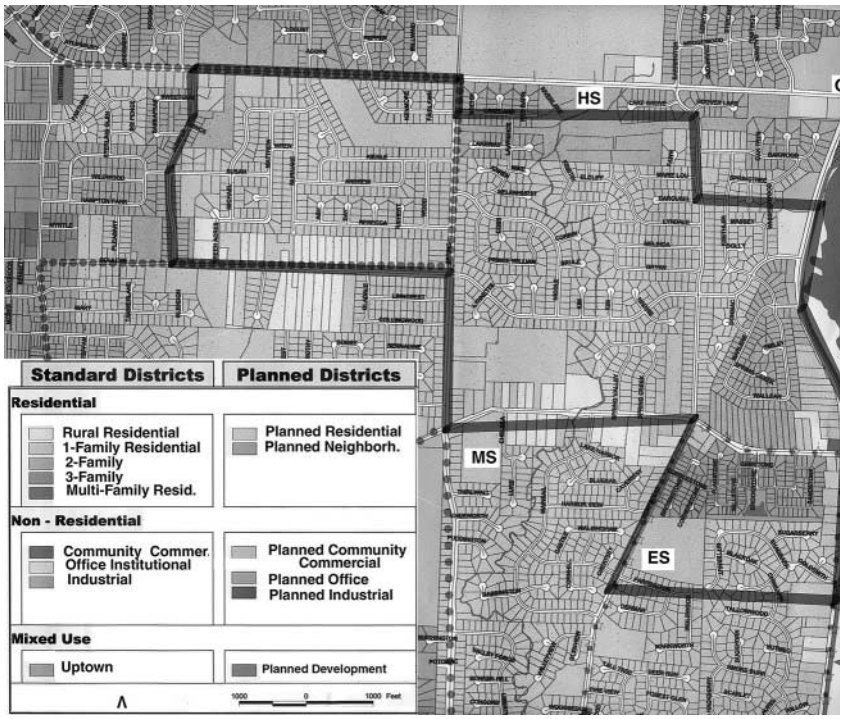


***Figure 3.*** *Land-use and bus route map of the SUBURB area of Westerville, Ohio. Gr = grocery, ES = elementary school, MS = middle school, HS = high school, dotted lines = bus routes.*


***Figure 4.*** *Land-use and bus route map of the traditional development (TD) area in Westerville, Ohio. Gr = grocery, ES = elementary school, MS = middle school, HS = high school, PO = post office, dotted lines = bus routes.*

## ► Procedure

Interviewers were obtained from 120 adults (60 from each area) in the summer on weekday afternoons between 1 P.M. and 6 P.M. and weekends between 10 A.M. and 2 P.M. For the sample, sixty street intersections were selected at random in each district. Then, from each intersection, a direction and a house were selected at random. For homes having no one in, the interviewer checked the houses adjacent to it and across the street for an occupied house. To get sixty respondents in SUBURB, the interviewer approached 104 homes in that area. Of those, 26.9 percent had no one home. From the remaining 76 homes, 78.9 percent took part in the study. To get sixty respondents in TD, the interviewer approached 98 homes in that area. Of those, 24.5 percent had no one home.

From the remaining 74 homes, 81.1 percent took part in the study. The nonresponse rate of about 20 percent may raise concerns about whether the samples reflect their populations, but as people dropped out prior to knowing the survey content, the nonresponses should not affect the comparisons across the two areas.

Table 1 shows the demographic profile of respondents in each area. As you can see, the samples had similar distributions of respondents by gender, age, number of children, education, and marital status. The sample from each area consisted primarily of married, college-educated couples with children and with a median income in the range of $65,000 to $100,000. Although SUBURB appears to have a slightly higher percentage of males than does TD, tests of differences for each demographic category revealed no significant differences between TD and SUBURB.

Responses to questions on sense of community, auto use, and the reasons for choosing to live in the area might affect one another. To mitigate and test for such effects, the survey plan had some respondents complete only the NSOC scale, others complete only the auto use and reasons for moving scales, and others complete all three scales—NSOC, auto use, and reasons for moving. For the third group, the order of scales was varied, so that some people received the NSOC scale first and then, 7 to 10 days later, received the auto use and reasons for moving scales; others received the auto use and reasons for moving scales first and then, 7 to 10 days later, received the NSOC scale. All respondents received the questions about their demographic characteristics.

Each area had a similar number of respondents to each set of questions. Of the ninety-one respondents answering the NSOC questions, 51.6 percent lived in SUBURB and 48.4 percent lived in TD. Of the eighty-three respondents answering the auto use and reasons for moving questions, 50.6 percent lived in SUBURB and 49.4 percent lived in TD.

***Figure 5.*** *SUBURB has one use, larger lots, and houses further from one another and the street.*

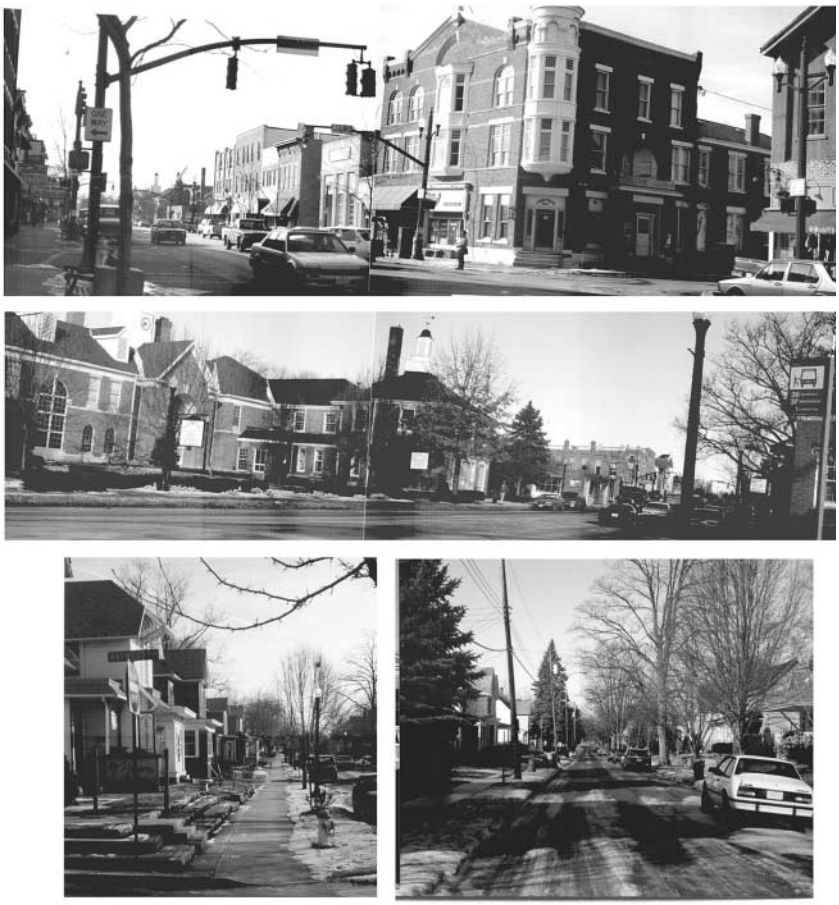

***Figure 6.*** *Traditional development (TD) area has mixed use, smaller lots, and houses close to one another and the street.*

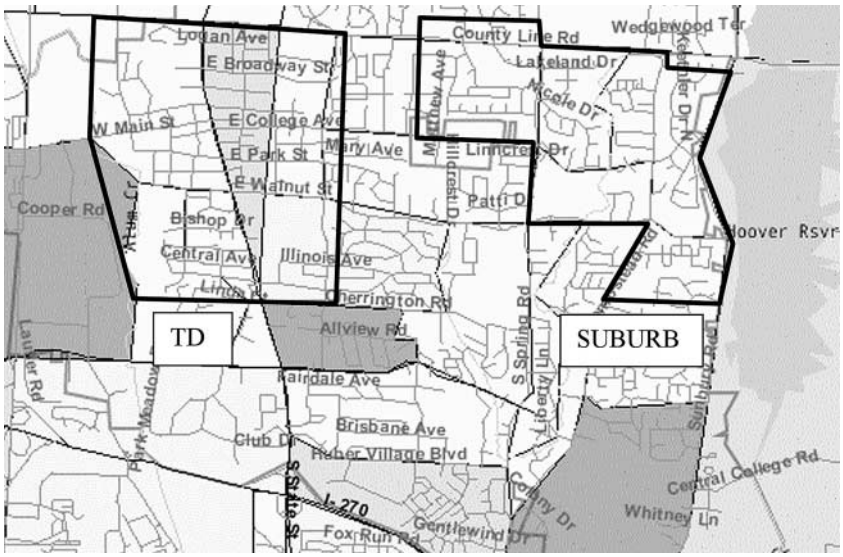


***Figure 7.*** *Percentage of housing units in structures with ten or more units (shades go from 0 to 1.9 percent =* lightest *to 61.9 percent =* darkest*). Traditional development (TD) has a higher percentage of such structures than does SUBURB.*
Source: U.S. Census Bureau (1990).

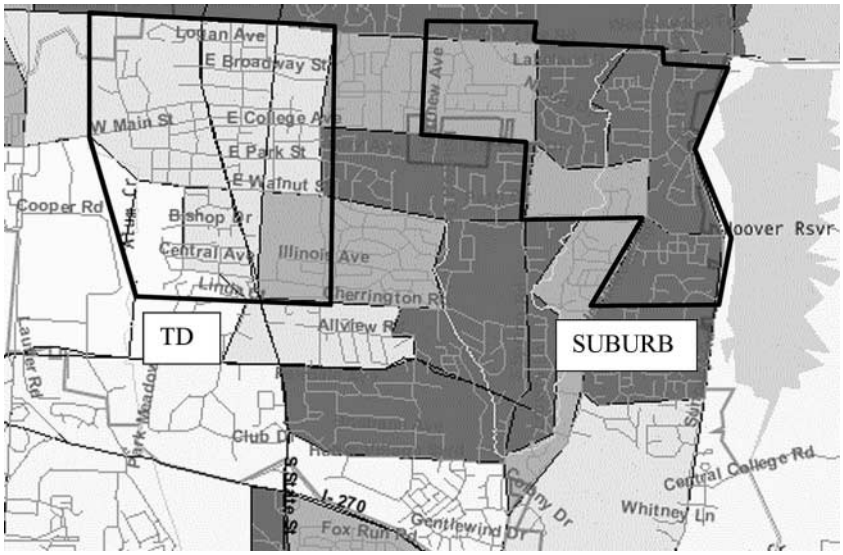


***Figure 8.*** *Percentage of housing units that are one unit, detached (shades go from 0.1 to 24.1 percent =* lightest *to 93.1 to 100 percent =* darkest*). SUBURB has a higher percentage of such units than does traditional development (TD).*
Source: U.S. Census Bureau (1990).

Each area also had a similar number of respondents completing each form. The form with the NSOC scale had eighteen respondents from SUBURB and nineteen from TD, the form asking about auto use and reasons for moving had thirteen respondents from SUBURB and sixteen from TD, and the form asking all three sets of questions had twenty-nine respondents from SUBURB and twenty-five from TD. The test showed no significant differences in response related to the survey form or the question order.

## ► Results

Why did residents choose their neighborhood? Most people in each area cited quiet, safety, and schools. Respondents from TD and SUBURB did not differ in the importance they assigned sense of community or auto dependency in picking their neighborhood. Table 2 ranks by the frequency cited the reasons respondents gave for choosing to live where they did. Of the seventeen reasons given, only two achieved significant differences across the two neighborhoods: historic area and nature/recreation. A significantly higher proportion of TD (20.0 percent) than SUBURB respondents (1.67 percent) reported "historic area" as a reason they chose the area, and a significantly higher proportion of SUBURB (21.67 percent) than TD respondents (1.67 percent) reported nature and recreation as a reason they chose the area. The desire for sociability did not differ significantly across the two areas. Similar percentages of the SUBURB and TD respondents cited "friendliness," and a similar percentage of the SUBURB and TD respondents cited "similar to others" as a reason.

Respondents in each area reported similar demographic characteristics and similar reasons for selecting their neighborhood. If differences emerge in auto use or sense of community across the neighborhoods, those differences more likely relate to the physical arrangements than to attributes of the residents.

Did TD residents report less use of their autos than did SUBURB residents? As predicted by advocates of neotraditional development, the results showed less use of autos in the TD area. Table 3 shows the mean scores and test statistics for use of automobiles for trips to each of the six destinations. Three destinations—grocery, other shopping, and library—had significantly lower auto use scores for the TD than the SUBURB. For grocery store, 100 percent of the

**Table 1.**
**Reported demographic characteristics of respondents (in percentages).**

| | *SUBURB* (n = *60*) | *Traditional Development (TD)* (n = *60*) |
|---|---|---|
| Gender | | |
| Male | 55.0 | 46.7 |
| Female | 45.5 | 53.3 |
| Age | | |
| 18-34 | 10.0 | 15.0 |
| 35-54 | 43.3 | 48.3 |
| 55+ | 46.7 | 36.7 |
| Marital status | | |
| Married | 83.3 | 70.0 |
| Single | 6.7 | 13.3 |
| Divorced | 3.3 | 11.7 |
| Widowed | 5.0 | 5.0 |
| No answer | 1.7 | 0.00 |
| Number of children | | |
| 0 | 63.3 | 53.3 |
| 1 | 16.7 | 25.0 |
| 2+ | 18.3 | 21.7 |
| No answer | 1.67 | 0.0 |
| Education | | |
| High school | 5.0 | 8.3 |
| Some college | 26.7 | 16.7 |
| College graduate | 43.3 | 46.7 |
| Some graduate school | 11.7 | 6.7 |
| Graduate degree | 13.3 | 21.7 |
| Income | | |
| $20,000-$30,000 | 1.7 | 8.33 |
| $30,001-$45,000 | 8.3 | 5.0 |
| $45,001-$65,000 | 15.0 | 23.3 |
| $65,001-$100,000 | 40.0 | 31.7 |
| $100,000-$150,000 | 16.7 | 11.7 |
| $150,001 or more | 3.3 | 0.0 |
| No answer | 15.0 | 20.0 |

**Table 2.**
**Reasons why respondents chose to live where they did (in percentages).**

| *SUBURB* (n = *42*) | | *Traditional Development (TD)* (n = *41*) | |
|---|---|---|---|
| Quiet | 40.00 | Safety | 33.33 |
| Safety | 38.33 | Quiet | 30.00 |
| Schools | 28.33 | Schools | 28.33 |
| Quality of house | 26.67 | Friendliness | 21.67 |
| Friendliness | 25.00 | Historic area | 20.00[a] |
| Nature/recreation | 21.67[a] | Quality of house | 18.33 |
| Regional attraction | 21.67 | Regional attraction | 15.00 |
| Close to job | 11.67 | Close to job | 15.00 |
| Close to shopping | 11.67 | Affordable housing | 13.33 |
| Family ties | 10.00 | Family ties | 13.33 |
| Similar to others | 10.00 | Similar to others | 13.33 |
| Other | 10.00 | Cultural attraction | 13.33 |
| Previously owned | 5.00 | Close to shopping | 11.67 |
| Affordable housing | 3.33 | Previously owned | 6.67 |
| Churches | 3.33 | Churches | 6.67 |
| Cultural attraction | 3.33 | Other | 6.67 |
| Historic area | 1.67[a] | Nature/recreation | 1.67[a] |

Note: Percentages in each area exceed 100 because each respondent gave several reasons.
a. Historic area ($\chi^2 = 10.44$, $df = 1$, $p < .05$) and nature/recreation ($\chi^2 = 11.64$, $df = 1$, $p < .05$) differed across the two areas.

**Table 3.**
**Respondents' use of autos to go to six destinations.**

| *Destination* | *Traditional Development SUBURB* (n = *42*) | *(TD)* (n = *41*) | F *Statistics* |
|---|---|---|---|
| Grocery | 5.00 | 4.86 | $F = 6.129$, $df = 1$, $p < .05$ |
| Other shopping | 4.97 | 4.31 | $F = 16.61$, $df = 1$, $p < .001$ |
| Library | 4.59 | 3.62 | $F = 6.854$, $df = 1$, $p < .05$ |
| Visiting friends | 4.65 | 4.31 | $F = 2.735$, $df = 1$, $p = .10$ |
| Post office | 5.00 | 4.80 | |
| Park | 2.85 | 3.17 | |
| Combined[a] | 4.97 | 4.31 | $F = 6.150$, $df = 1$, $p < .05$ |

Note: Scale ranges from 1 = *never*, 2 = *a few times*, 3 = *sometimes*, 4 = *most of the time*, 5 = *all of the time*.
a. Mean across trips to all six kinds of destinations.

SUBURB group reported using their cars all of the time as compared to 85.4 percent for the TD group. For other shopping, 90 percent of the SUBURB group as compared to 63.4 percent of the TD group reported using their autos all of the time. For library trips, 90 percent of the SUBURB group as compared to 59.4 percent of the TD group reported using their cars all of the time. The SUBURB group reported using their autos more for visiting friends, but this difference only achieved marginal significance. Trips to the post office and trips to the park did not achieve a statistically significant difference across the two areas. For the combined mean from all kinds of trips (shown at the bottom of the table), TD residents reported a significantly lower use of autos than SUBURB residents. Similar differences emerged for tests of the sample that completed only the auto-dependency questions ($F = 6.502$, $df = 1$, $p < .05$) and the sample that completed both the auto-dependency and the sense of community scales ($F = 5.781$, $df = 1$, $p < .05$). In sum, the TD mixed-use area, with shorter distances between various uses, had lower use of autos than did its neighboring traditional suburb.

Given the difference in auto use, neotraditionalists would predict a greater sense of community in the TD than in the

SUBURB. The present study tested this several ways. It tested the full sample of ninety-one respondents who answered the sense of community scale alone or in combination with other scales, tested the respondents who received the sense of community scale only, and tested the respondents who received all three scales—sense of community, auto use, and reasons for moving. In each case, no significant difference emerged ($F$ = 2.114, $df$ = 1, $p$ = .15; $F$ = 1.920, $df$ = 1, $p$ = .18; $F$ = 2.168, $df$ = 1, $p$ = .14). The two areas had similar scores for sense of community. On the 5-point scale, the scores (TD = 3.7, SUBURB = 3.6) indicate a moderately strong sense of community in each area.

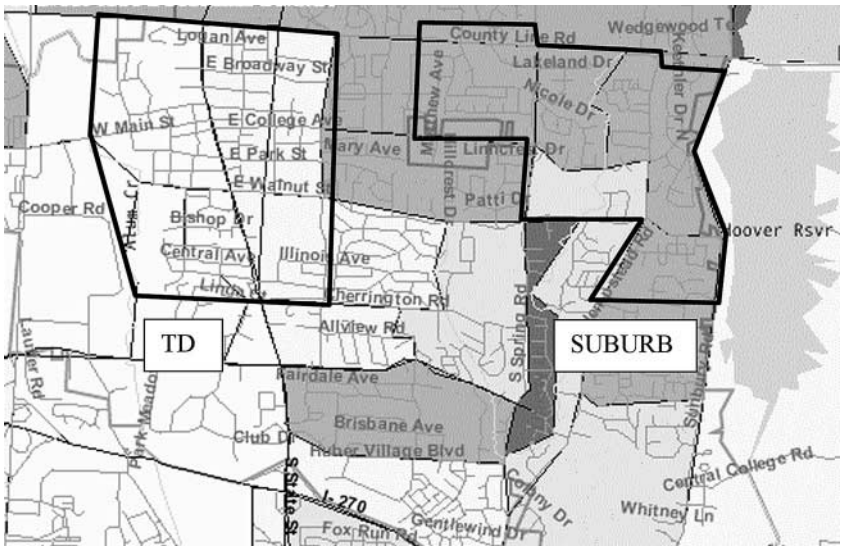


***Figure 9.*** *Percentage of occupied units with three or more autos (shading goes from 4.9 to 11.3 percent =* lightest *to 44.0 to 46.8 percent =* darkest). *SUBURB had a higher percentage of such units than did traditional development (TD).*
Source: U.S. Census Bureau (1990).

## ► Conclusions

The results for the traditional neighborhood offer partial support for the claims of NTD advocates. For an outerbelt community, the results indicated less use of autos for the TD than the SUBURB. Groceries, mini-marts, the library, and neighborhood friends were closer in TD than in SUBURB, and this may have helped produce the decrease in auto use to those destinations. However, the two areas differ in some ways that may account for part of the differences. As shown in Figures 9, 10, and 11, TD had fewer cars per household and than did SUBURB and, in a couple of areas, a higher percentage of workers age sixteen years and older who commuted to work by public transportation (U.S. Census Bureau 1990). Figures 3 and 4 showed better bus service through the TD area than in or around SUBURB.

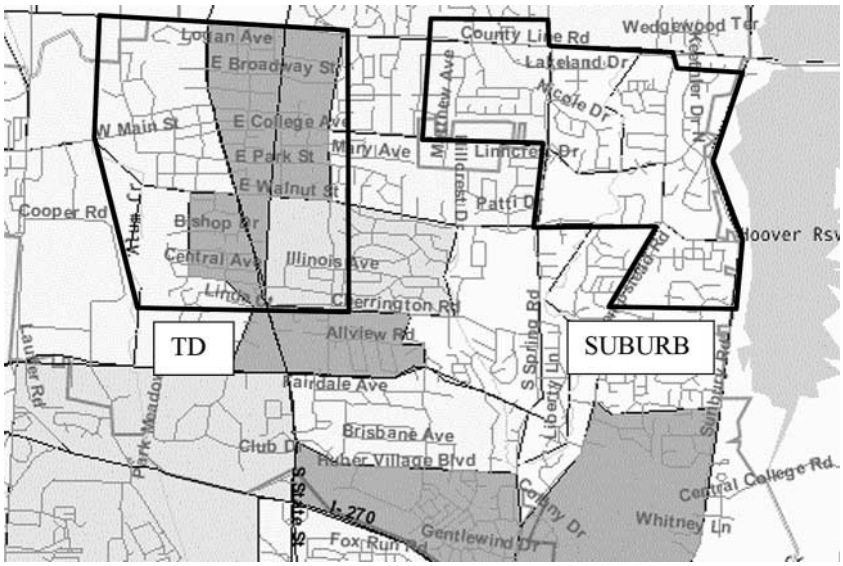


***Figure 10.*** *Percentages of occupied units with no autos (shading goes from 0 percent =* lightest *to 22.3 percent =* darkest). *Traditional development (TD) had a higher percentage of occupied units with no autos than did SUBURB.*
Source: U.S. Census Bureau (1990).

The more condensed pattern of development and reduced use of auto did not yield a higher sense of community: residents in TD and SUBURB showed no difference in sense of community. This finding agrees with other findings that suburban residents neighbor with one another regularly (Campbell and Lee 1992), and it suggests that the traditional suburb is not the cold place described by its critics.

Will the present findings apply to neotraditional developments? The findings suggest that some residents might respond to mixed-use higher density development with less reliance on the auto. People living closer to destinations might be more likely walk to them or, with the better bus service, use the bus, but while increased walking may have salutary effects on health and energy use, it may have no effect on sense of

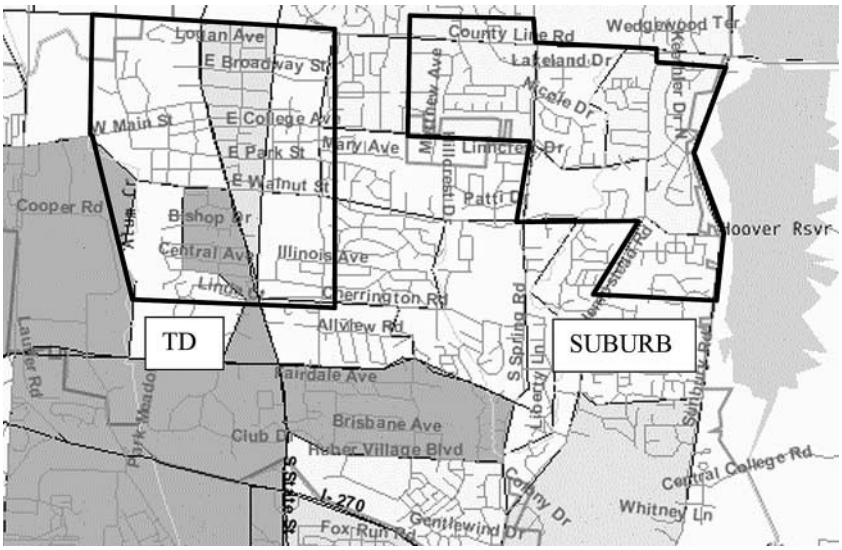


***Figure 11.*** *Percentage of workers sixteen years and older who commute to work by public transportation (darker shades mean higher percentage commuting). Traditional development (TD) had a higher percentage of public transport commuters than did SUBURB.*
Source: U.S. Census Bureau (1990).

community. One might think that homebuyers in new neotraditionalist developments marketed to buyers interested in such developments might respond differently from the TD residents. But one study in Salt Lake City, Utah, suggests otherwise. As in the present study, Brown and Cropper (2001) found similar levels of sense of community for residents in a standard suburban subdivision and residents in a new neotraditional development. Another study contradicts the Westerville and Salt Lake City findings. In Portland, Oregon, Lund (2002) found a higher sense of community in a traditional neighborhood than in a modern-style suburb. As Brower's (1996) comprehensive study of neighborhoods found, different kinds of neighborhoods attract different kinds of people. Perhaps the mix of individual and physical attributes in the different areas studied accounts for the contradictory findings.

The present study did not explore differences in response related to personal attributes, but theory and research also suggest that gender and presence of children may affect neighboring and social support (Campbell and Lee 1992; Keller 1968; Wellman and Wortley 1990). Personal attributes such as these might also affect use of the auto. Thus, the present findings may well interact with social conditions to produce differences in auto use and similarities in sense of community. In addition, individual physical features, such as climate, topography, lot size, house size, street width, block length, block form, traffic, and front porches, may affect sense of community.

In light of the hundreds of neotraditional developments around the country and the contradictory findings on their effects, planners need better information on their performance. Where communities want neotraditional development, developers will often comply for the higher densities and return on the land. Due to the impracticality of controlled studies on each physical and social attribute, broader studies comparing a variety of NTD-type developments with a variety of traditional suburbs may help clarify the costs and benefits of various features. In the absence of broader studies, planning researchers should monitor new neotraditional developments to gauge their performance. A large number of case studies can become part of a meta-analysis that evaluates the various aspects of development. The combination of case study information and broad studies can improve the knowledge base for planning the next generation of development. It can guide planners in what features to seek or avoid for specific populations. With such information, planners can act on the basis of fact rather than publicity.

## ▶ Appendix
**Survey instrument.**

### Neighborhood Questionnaire

The following statements refer to the neighborhood in which you live. Please indicate the degree to which you agree or disagree with each statement (SA = strongly agree, A = agree, N = neutral, D = disagree, SD = strongly disagree):

1. I am quite similar to most people who live here.
   SA A N D SD
2. If I feel like talking, I can generally find someone in this neighborhood to talk to right away.
   SA A N D SD
3. I don't care whether this neighborhood does well.
   SA A N D SD
4. The police in this neighborhood are generally friendly.
   SA A N D SD

5. People here know they can get help from others in the neighborhood, if they are in trouble.
   SA A N D SD
6. My friends in this neighborhood are part of my everyday activities.
   SA A N D SD
7. If I am upset about something personal, there is no one in this neighborhood who I can turn to.
   SA A N D SD
8. I have no friends in this neighborhood on whom I can depend.
   SA A N D SD
9. If there were a serious problem in this neighborhood, the people here could get together and solve it.
   SA A N D SD
10. If someone does something good for this neighborhood, that makes me feel good.
    SA A N D SD
11. If I had an emergency, even people I do not know in this neighborhood would be willing to help.
    SA A N D SD
12. What is good for this neighborhood is good for me.
    SA A N D SD
13. Being a member of this neighborhood is like being a member of a group of friends.
    SA A N D SD
14. We have neighborhood leaders here that you can trust.
    SA A N D SD
15. There are people in this neighborhood, other than my family, who really care about me.
    SA A N D SD

Please describe the reasons why you chose to live here (three items minimum, ten items maximum).

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

In the last month you have lived here, how often do you use your automobile to go to the following places?

| - | *Never* | *A Few Times* | *Sometimes* | *Most of the Time* | *All of the Time* |
|---|---|---|---|---|---|
| 1. Neighborhood park | 1 | 2 | 3 | 4 | 5 |
| 2. Grocery store | 1 | 2 | 3 | 4 | 5 |
| 3. Other shopping area | 1 | 2 | 3 | 4 | 5 |
| 4. Visit friends | 1 | 2 | 3 | 4 | 5 |
| 5. Library | 1 | 2 | 3 | 4 | 5 |
| 6. Post office | 1 | 2 | 3 | 4 | 5 |

Demographic Questions

Sex
- (1) Male
- (2) Female

Age
- (1) 18-34
- (2) 35-64
- (3) 65+

Joint household income
- (1) Under $20,000
- (2) $20,001-$30,000
- (3) $30,001-$45,000
- (4) $45,001-$65,000
- (5) $65,001-$100,000
- (6) $100,001-$150,000
- (7) $150,001 or more

Education level
- (1) Attended high school but did not graduate
- (2) Graduated high school
- (3) Attended college but did not graduate
- (4) Graduated college
- (5) Attended graduate school
- (6) Graduate degree

How many children are in your household?

_____

Marital status
- (1) Single
- (2) Married
- (3) Divorced
- (4) Widowed

## ► References


Appleyard, D. 1981. *Livable streets.* Los Angeles: University of California Press.

Audirac, I., and A. H. Shermyen. 1994. An evaluation of neotraditional design's social prescription: Postmodern placebo or remedy for suburban malaise. *Journal of Planning Education and Research* 13:161-73.

Bookout, L. W. 1992a. Neo-traditional town planning: A new vision for the suburbs? *Urban Land* 51 (8): 20-26.

———. 1992b. Neo-traditional town planning: Towards a blending of design approaches. *Urban Land* 51 (8): 14-19.

Brower, S. 1996. *Good neighborhoods: A study of in-town and suburban residential environments.* Westport, CT: Praeger.

Brown, B. B., and V. L. Cropper. 2001. New urban and standard suburban subdivisions: Evaluating psychological and social goals. *Journal of the American Planning Association* 67:402-19.

Calthorpe, P. 1993. *The next American metropolis: Ecology, community and the American Dream.* New York: Princeton Architectural Press.

Campbell, K. E., and B. A. Lee. 1992. Sources of personal neighbor networks: Social integration, need, or time? *Social Forces* 132:419-21.

Christoforidis, A. 1994. New alternatives to the suburb: Neotraditional developments. *Journal of Planning Literature* 8:429-40.

Cochrun, S. E. 1994. Understanding and enhancing neighborhood sense of community. *Journal of Planning Literature* 9:92-99.

Crane, R., and R. Crepeau. 1998. Does neighborhood design influence travel? A behavioral analysis of travel diary and GIS data. *Transportation Research D* 3:225-38.

Delsohn, G. 1994. Peter's pockets. *Planning* 60:18-21.

Duany, A., and E. Plater-Zyberk. 1992. The second coming of the American small town. *Wilson Quarterly* 16:19-51.

Elmer, F., and D. Way. 1991. *Work from the Columbus Comprehensive Plan.* Columbus, OH: Frank Elmer and Associates.

Fulton, G. 1992. Future designs for small towns in Canada. *Plan Canada* 35:29-30.

Howard, E. [1898] 1947. *Garden cities of tomorrow.* Reprint, London: Faber & Faber.

Keller, S. 1968. *The urban neighborhood.* New York: Random House.

Knack, R. E. 1989. Repent, ye sinners, repent! *Planning* 55:4-13.

Krieger, A., and W. Lennertz, eds. 1991. *Andres Duany and Elizabeth Plater-Zyberk: Towns and town-making principles.* New York: Rizzoli.

Langdon, P. 1988. A good place to live. *Atlantic Monthly* 261:39-60.

Lerner-Lam, E., S. P. Gelniker, G. W. Halbert, C. Chellman, and S. Ryan. 1992. Neo-traditional neighborhood design and its implications for traffic engineering. *ITE Journal* 62:17-25.

Lund, H. 2002. Pedestrian environments and sense of community. *Journal of Planning Education and Research* 21:301-12.

Lyon, L. 1987. *The community in urban society.* Chicago: Dorsey.

MacBurnie, I. 1992. Reconsidering the dream: Alternative design for sustainable development. *Plan Canada* 35:19-23.

McMillan, D. W., and D. M. Chavis. 1986. Sense of community: A theory and definition. *American Journal of Community Psychology* 14 (1): 6-23.

Nasar, J. L., and D. Julian. 1994. The psychological sense of community in the neighborhood. *Journal of the American Planning Association* 61:178-84.

Perry, C. A. [1929] 1974. The neighborhood unit. In *Neighborhood and community planning, metropolitan America.* Reprint, New York: Arno.

Rubenstein, C. 1993. The folks next door aren't strangers after all. *The New York Times*, 2 January, B5.

Stein, C. 1957. *Towards new towns for America.* Cambridge, MA: MIT Press.

Sutro, S. 1990. *Reinventing the village.* American Planning Society Report No. 430. Washington, DC: American Planning Association.

U.S. Census Bureau. 1990. *1990 summary tape file (STF1, 100%): Ohio, Franklin County, Westerville.* Washington, DC: Department of Commerce.

U.S. Department of Transportation. 1991. *1990 Nationwide Personal Transportation Study.* Washington, DC: U.S. Department of Transportation.

Wellman, B., and S. Wortley. 1990. Different strokes for different folks: Community ties and social support. *American Journal of Sociology* 96:558-88.