

**Smart Growth: Residents' Social and Psychological Benefits, Costs and Design**  
**Barbara Brown**

By Scott Siedor '11

At the invitation of the Goodwin-Niering Center for the Environment, Barbara Brown came to Connecticut College on March 5, 2011 to participate in the Elizabeth Babbott Conant Interdisciplinary Conference on the Environment titled, *Smart Growth: Environment and Social Implications*. Coming from the University of Utah where she is an environmental psychologist and professor of Family and Consumer Studies, Dr. Brown gave an engaging presentation titled, *Smart Growth: Residents' Social and Psychological Benefits, Costs and Design*.

Over the past 10 years, the western United States has experienced a notable migratory trend and influx of new residents seeking an escape from the dense, overly populated eastern United States. People are heading west for the hope of a stronger economy as well as more outdoor recreation options. And certainly while this growth has been positive in many aspects, it has also created significant problems for city leaders and town planners who are constantly faced with difficult decisions on how best to handle traffic congestion, polluted air, suburban sprawl, etc.

Dr. Brown argues that development has created a powerful, long-standing vision of the suburbs that needs to be dealt with. Conventional suburban neighborhoods are comprised of massive, single family, low density dwellings with substantial energy costs. And despite shrinking household sizes, homes are getting bigger and energy costs are going up. These trends show that we need more affordable, smaller and greener housing

options that require less dependence on polluting energy sources. The means to such a goal is through smart growth development.

Communities across the country are using creative smart growth strategies to develop in ways that preserve natural lands and critical environmental areas while conserving resources by reinvesting in existing infrastructure. By designing neighborhoods that have shops, offices, schools, churches, parks, etc. near homes and public transportation terminals, communities are giving residents the option of walking, bicycling or taking public transportation to go about their daily lives while eliminating the need for single car use. Through these smart growth approaches that enhance neighborhoods, these communities are creating vibrant places to live.

With this shift appearing inevitable, what will be the reaction of the local residents? This is the central question behind Dr. Brown's research. To address the potential psychological and behavioral affects of smart growth, she has compared residents with and without smart growth designs to test for differences. Two specific case studies highlight the many implications that smart growth designs can have on the local community.

The first study was an urban light rail line (TRAX ) constructed in a slowly developing Salt Lake City neighborhood. Dr. Brown and her assistants interviewed over 100 residents before and after a new stop on the line was constructed to understand how this smart growth transit hub affected the community, e.g. did it promote walking? Do people in the community have healthier weights? Is there community satisfaction? Surveys were distributed, interviews were conducted, body mass indices were calculated, and levels of physical activity were documented.

In executing the study and analyzing the results, Dr. Brown divided the sample into three sub-groups. The first group was comprised of non-riders, those residents who did not use TRAX before or after the implementation of the new stop. The second group was new riders, those who began using TRAX only after the implementation of the new stop. The third group was continuing riders, those who already utilized different stops on the TRAX line before the new stop was implemented.

After the study was completed, the results yielded many interesting psychological implications. It was found that there was over a 35% increase in the number of residents who rode TRAX when the stop was located closer to their home. Furthermore, the new riders of group 2 drove significantly less; showing that in their case TRAX was a clear substitute for automobile use after the new stop was constructed.

Additionally, non-riders in group 1 got far less daily physical activity than both group 2 and group 3; they had over a 60% obesity rate.

When measuring the residents place attachment and bond to the neighborhood, numbers were lowest among non-riders whereas the everyday, consistent riders of group 3 showed high place-attachment to their neighborhood. Overall, residents had higher satisfaction levels with the new stop.

Contrary to popular belief, residents overwhelmingly thought TRAX would not decrease pedestrian safety. One resident's opinion makes a clear case, "I think pedestrian safety has increased because professional TRAX drivers are more cautious than some drivers in the neighborhood".

In conclusion, Dr. Brown was able to use this case study to show that smart growth design can indeed have an overall positive impact on the local community.

Specifically, light rail use was correlated with less driving, healthy physical activity, healthy weight, high neighborhood attachment and satisfaction, and more traffic safety than anticipated. In a takeaway for future practice, development with convenient transit access may provide benefits to individuals as well as improve environmental sustainability. Planners should promote the personal benefits associated with living in transit-oriented development, including high levels of neighborhood satisfaction, place attachment and healthy living among riders.

Dr. Brown hopes that with a grant from the National Cancer Society, she can take this pilot study and develop it into a more extensive analysis whereby she can potentially come to additional conclusions on the many implications of smart growth transportation on communities.

The second study was a design comparison between the dense town home and thin alleyway design of a New Urbanist development versus that of a standard suburb design.

Within the concept of New Urbanism, there are four key ideas. The first of these is to ensure that the residential area is walkable, meaning no resident should need a car to get anywhere in the community. To achieve this, communities should invest in sidewalks and narrow streets not only to promote walking but to de-emphasize the car by placing garages or in alleys behind the home. Instead of large parking lots, there should also only be on-street parking. Another core design of New Urbanism is that homes should differ in both style and size, where for example, a small townhouse can be placed next to a larger, single family home. Finally, and most importantly, a New Urbanist neighborhood places a strong emphasis on the community.

Again, Dr. Brown's study yielded many interesting results. As mentioned previously, it was generally believed that New Urbanism development enhanced community involvement and satisfaction amongst residents, however, the results yielded no significant advantages in fostering a sense of community over the standard suburb design.

Nevertheless, as predicted, New Urbanism was found to have higher rates of neighborhood activity, walking, recreation and social contact. Many residents favored the apartment style building options built above the garages as well as the front porches. On the other hand, residents disliked the small front yards and the rear stand alone garages placed behind the town houses.

Many past studies have shown that residents dislike the crowding of smart growth and New Urban developments, yet Dr. Brown studies have shown that in fact residents in these communities experience social contact opportunities, place attachment and transportation options that provide positive social and psychological implications. With that being said, there are still many flaws in current smart growth design elements and research has suggested many possible solutions including better designs and better communication concerning the significant benefits of smart growth alternatives.

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