that, as long as Minnesota is viewed in isolation from its adjacent states, the potential for statewide economic gains cannot be a valid argument on which to base decisions for increased highway funding in Minnesota. However, our findings suggest that highway investment can be used for shaping regional development policy within the state. Similarly, it can be argued that, if Minnesota is viewed in competition with its neighboring states in the Upper Midwest, transportation improvements in the state could result in state economic gains.

Yorgos Stephanedes is a professor of civil engineering at the University of Minnesota. His major research interest is in the application of advanced technologies (such as automation, robotics, image processing, automatic control, guidance and navigation, communications, and driver information systems) to transportation and the effect of these applications on economic competitiveness. He is currently chairing an international conference on advanced technologies that will be held in Minneapolis next summer.

The research presented here followed a major study prepared for the Minnesota Department of Transportation (Mn/DOT) by Stephanedes and a number of other University of Minnesota researchers, including David Eagle, a Ph.D. student in the Department of Economics and graduate research assistant in the Department of Civil and Mineral Engineering, and Mike Sheppard, a professor in the Department of Geography. The results of that study have been published in nine volumes under the general title Transportation and Economic Development. Copies may be obtained by writing Mn/DOT. This study is an extension of the Mn/DOT study and provides a closer look at Minnesota, county by county.

This study was supported by an interactive research grant from CURA and the Office of the Vice President for Academic Affairs, University of Minnesota. Interactive research grants have been created to encourage University faculty to carry out research projects that involve significant issues of public policy for the state and that include interaction with community groups, agencies, or organizations in Minnesota. These grants are available to regular faculty members at the University of Minnesota and are awarded annually on a competitive basis.

Photos on pages 5 and 8 by Robert Friedman.

More Snowbirds, More Money

by William J. Craig

Last December we reported our estimate of 73,000 seniors leaving Minnesota each winter for extended stays in warmer states.* While out of state, we estimated they spent $110 million dollars. This article provides an update and is based on new survey information and an extensive newspaper series in Arizona, the favorite destination for Minnesotans. Based on the new information, we estimate the number of snowbirds has increased to 83,000 and the dollars spent to $150 million.

Snowbirds is a term used in southern states to describe the flocks of seasonal migrants that arrive each winter and leave each spring. The first known use of the term is traced to a 1967 New York Times article. This seems to be about the time that people began making these winter escapes in large numbers.

Our earlier research showed that about 9 percent of Minnesota’s senior households leave the state for a period of at least five weeks during the winter. We estimated that this represents 73,000 people. Arizona accounted for one-third of the trips; California, Florida, and Texas followed and combined for another half of the destinations. Although people begin to leave in November, January is the biggest departure month. Among seniors we found snowbirds more likely to be: younger, married, well educated, middle income, healthy, and living in outstate Minnesota.

New Survey Data

The Wilder Research Center has collected new data as part of their Senior Study. Data for our first analysis came from a 1988 Wilder survey that interviewed 1,500 households, sampled by region in proportion to their numbers across the state. Since then Wilder has supplemented this survey with two others, one of more outstate households and one of minority households.

The outstate survey was conducted in the summer of 1989. Its purpose was to expand the number of households interviewed in each development region of Minnesota to 200, a sufficient number to complete a “needs assessment” for each of the thirteen regional area agencies on aging (see map). Data from those 1,536 new surveys allow us to look at recent trends, regional differences, and more detailed analysis.

The most significant finding from the new outstate survey is growth in the number of snowbirds. In 1989, 11.2 percent of the outstate elderly were snowbirds, compared to 9.8 percent in 1988. In this calculation data were weighted back to regional-level proportions. This 1.4 percentage point rise is a relatively large shift for a single year amounting to a 14 percent gain. This change might be due to sampling error, but we doubt it. We know that snowbird activity is increasing, and this is our best estimate of the rate of change, at least for this one period. If this same increase was made by all Minnesotans, the number of seniors leav-
ing the state has grown from 73,000 to 83,000 and the rate of snowbird participation from 9.2 to 10.5 percent.

Differences by region were not major (Table 1). These figures combine interviews from the 1988 outstate survey with the original 1988 Wider survey. On average, 10 percent of the state's senior population were snowbirds. As before, the metropolitan area is quite low with only 8 percent of those who are sixty or older behaving as snowbirds. Metro seniors seem more likely to take several short trips rather than go for an extended stay. Only Region 6E, the area around Willmar, had a smaller percentage of seniors traveling—6 percent. Every other region sent seniors in proportions near or above the state average. Region 8, in the extreme southwestern corner of the state, sent the most seniors—15 percent. For interviews with 200 people the sampling error is ±4.2 percentage points, so the differences among most regions are not statistically significant; they might be due to a sampling error.*

Numerous people suggested to the author that farmers are likely candidates for winter travel. Those without animals to care for could travel in the winter even before retirement years. Data from the combined surveys show that farmers generally are not snowbirds. Only 5.1 percent of farmers were snowbirds, roughly half the rate for seniors as a whole. Snowbirds were much more likely to have worked in white collar professional, managerial, or sales jobs.

Another hypothesis is that snowbirds are city-dwellers who have retired to their lake place, but who leave each winter to escape the isolation. The data partially support this idea, although no question dealt directly with this issue. A question about length of residence shows that snowbirds have a slight tendency to be more recent arrivals at their current home. Also, the tendency of snowbirds to live in open country is stronger in the lake counties of the state. Neither of these differences, however, is supported by more than a few percentage points in the data.

The minor survey made a special effort to contact American Indians, blacks, Hispanics, and Southeast Asians in early 1989. There had been too few of these groups in the original survey to justify any statistical analysis. One hundred households were surveyed from each minority group. The results showed virtually no seasonal migration by any of these groups. The lower income levels of minority seniors probably account for the difference.

Table 1. Snowbird Population in Minnesota (based on an average of 1988 and 1989 data)

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of households interviewed</th>
<th>Percent of seniors who are snowbirds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>200</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>200</td>
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<td>6</td>
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<tr>
<td>6W</td>
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<td>9</td>
</tr>
<tr>
<td>7E</td>
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<td>9</td>
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<td>7W</td>
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<td>636</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>3,036</td>
<td>10</td>
</tr>
</tbody>
</table>

Arizona Newspaper Series

Arizona's economy is boosted by $500 million every year by snowbirds, and as much as $20 million is paid in taxes. Small wonder that the state is interested in the snowbird issue. The Arizona Republican ran a special series this past winter, "Snowbirds: Arizona's Winter Gold Mine." The series was so popular that it was reprinted. This series provides interesting insight into the impact on a receiving community and a few of the findings are included below.

A later article in The Arizona Republican reported research directly relevant to Minnesota. ** It showed that the number of snowbirds in the 1989-90 season had increased 6 percent over the previous sea-

* For the metropolitan area (Region 11), where the sample was considerably larger, the sampling error is ± 1.1 percentage points. For the overall sample of 3,038 households the sampling error is ± 1.3 percentage points. These sampling errors are based on a 90/70 response distribution. The sampling error for the original 1988 survey is ± 1.5 percentage points.

** February 26-28, 1990. Word of these articles came to us through Helen Peterson of Fairmont, Minnesota who spends four months in Scottsdale each winter.

** Kathleen Ingleby, "Winter Visitors to Valley a Record," The Arizona Republican, April 27, 1990, p. fl ft.

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percent of retail sales in metropolitan Phoenix are to snowbirds during the November through March period.

Obviously the snowbirds themselves benefit or they wouldn’t be there. They are physically and socially active in Arizona. From swimming and dancing to games and visiting, snowbirds are active in their winter roost. An eighty-year-old Canadian finishing a brisk walk in 70-degree weather said, “Isn’t it grand? I would be locked indoors if I were back home.”

Conclusions and Reflections

Seasonal migration is an important and growing part of the lives of our seniors. Especially for a cold-winter state like Minnesota, we can look to increasing numbers of seniors departing each winter for places where they can be active in their retirement years. And over time, they seem to be increasing their expenditures.

Shortly after the previous study was released I was interviewed on Jim Roger’s talk show on WCCO radio. Some of the sto-

ries I heard from callers are worth recounting. Al, from St. Louis Park, leaves a second car at his mobile home in Mesa. He has six St. Louis Park neighbors with homes in the same park in Mesa. The whole neighborhood just moves south for five months each winter.

John, from Blaine, doesn’t settle anywhere, but uses his van to visit his children during the winter months. Keith, from New Hope, is home for Christmas, but on the road at other times to visit a brother in one part of the country and a son elsewhere. Both are married and travel with their wives. This family visiting is an important part of the snowbird phenomena, one not likely to diminish.

Margie, from Edina, was originally from Texas and now uses her winter months to revisit her home state. There are many reasons for people to be familiar with other parts of the country and to live there part of the year.

For Minnesota snowbirds, the ability to spend the cold winter months in places where they can be outside and active is wonderful. Minnesota loses something with their departure, however. We lose the money that would have been spent here, but more important we lose the vitality they give to their local communities. We know they are energetic participants and volunteers. With their departure, many local programs collapse until spring when they return.

Two suggestions were made in the earlier article on how to minimize the negative impact of snowbird flights; they are worth repeating here. First, the state could push for sunbird migration that would attract more summer visitors, counteracting the dollars lost in winter. Second, increasing the number of indoor winter activities for seniors might reduce the attractiveness of distant destinations. For the period under study, we seem to be losing the battle. One can only speculate on how higher oil prices and a weaker economy will affect this winter’s annual migration.

Will Craig is assistant director of CURA and director of the University’s Minnesota Center for Survey Research.