

Example 22.2

How Important is Tiebout Sorting in the United States?

Tiebout's hypothesis that people choose the communities they live in partly on the basis of their public service-tax mix raises an interesting question. People choose their communities for a number of reasons. How important is the public service-tax mix in their decisions? The answer, apparently, is not very much, at least not in the United States.

One piece of evidence against the Tiebout hypothesis is the American/Annual Housing Survey, a survey of 50,000 U.S. homeowners that has been ongoing since 1973. People who have moved within the past five years are asked to give the primary reason why they moved. Approximately fifty percent say either employment or family and friends. Only five percent answer public services, including schools.

Motivated by this survey result, Paul Rhode and Koleman Strumpf (hereafter, RS) approached the question from two very strong implications of the Tiebout hypothesis that were described in Chapter 22 of the text.¹ The first is that people with similar tastes for public services and taxes tend to live in the same communities so that they enjoy their most desired public service-tax mix. Therefore, over time communities should become more homogeneous with respect to people's tastes for public services. The second, which follows from the first, is that the public service-tax mix should become more dissimilar across communities over time. For example, younger adults with school age children should prefer to live together and favor high spending on schools along with higher taxes to pay for the schools, whereas older adults whose children have finished school should also prefer to live together to avoid having to spend much on schools. The younger-adult/older-adult communities are homogeneous with respect to tastes and have a very different public service-tax mix.

The sorting of people into homogeneous-tastes/different-public-sector communities over time is further driven by the dynamics of the Tiebout process. Tiebout sorting should accelerate once people begin to sort themselves across communities on the

¹ P. Rhode and K. Strumpf, "Assessing the Importance of Tiebout Sorting: Local Heterogeneity from 1850 to 1990", *American Economic Review*, December, 2003, pp. 1648-1677.

basis of tastes since no one wants to be in the minority regarding tastes for public services and taxes. The smaller that minority becomes, the more incentive those in the minority have to move and join a community with like-minded people.

A final consideration is that the extent of Tiebout sorting depends on the costs of moving, which include the opportunity costs of lost wages during the move, the out-of-pocket costs of moving and the psychic costs of separating from family and friends when moving to a new community. The lower the costs of moving, the more the homogeneous-tastes/different-public-sector outcome is to be expected.

RS tested these implications of the Tiebout hypothesis on a massive historical data base of demographic and public sector variables for the United States. They collected the variables for three different data sets:

- All the cities and towns—‘municipalities’—in a random sample of ten percent of all U.S. counties from 1870 to 1990.
- All ninety-two municipalities in the greater Boston area from 1870 to 1990.
- All counties in the U.S. from 1850 to 1990 (excluding Alaska).²

The public sector variables include total taxes, total spending, school taxes and spending, and spending on protection such as fire and police, among other spending categories. RS use eight variables as proxies for tastes: race, age, nativity, party voting shares in Presidential elections, religion, and, for 1970-1990 when they were first widely available, home ownership rates, education levels of the population, and income per capita. Each of these variables could be expected to affect tastes for public services and taxes. We noted the relationship between age and the demand for education above. In addition: blacks are three times as likely as whites to characterize themselves as strong Democrats, according to the General Social Survey; homeowners and high-income individuals exhibit more civil involvement than renters and low-income individuals; and nativity may affect the demand for different school curriculums.

RS argue that if Tiebout sorting is important, then one would expect to see municipalities become more homogeneous over time in terms of the proxy taste variables and more dissimilar in terms of the public sector variables. This is especially so since moving costs declined substantially in the U.S. from the mid-19th century to the late-20th century. True, the rise in real wages over time increased the opportunity costs of moving, but this was more than offset by decreases in the out-of-pocket and psychic costs of moving, which were extremely large. Some examples:

² Tiebout sorting would be expected to be much weaker across counties than across municipalities within counties, but the county data correlated highly with the municipality data and allowed RS to include more public spending variables in their analysis.

- The cost of moving household goods per ton mile decreased from \$1.47 in 1903 to \$0.58 by 1998 (1998 dollars).
- The cost of driving decreased from \$1.44 per mile in 1903 to \$0.55 per mile in 1998 (1998 dollars) and the miles of public highways doubled.
- The cost of a transcontinental telephone call in 1998 was 0.3% of its cost in 1903 (cheaper communication presumably decreases the psychic costs of moving by allowing people to remain in touch more easily).³

The U.S. population became more mobile over time in part because of the decreases in moving costs. In 1870, 77% of the native population resided in their state of birth; by 1990, only two thirds. The increase in mobility was most rapid in the last half of the 20th century. In 1940, 11% of the population lived in a different county than five years earlier; by 1990, 19%. Increased mobility is clearly conducive to increased Tiebout sorting.

RS use a number of different measures to capture the change over time in homogeneity of tastes within communities and the dissimilarity of the public sector variables across the municipalities and counties.⁴ No matter which taste or public sector variables they use, how they use these variables to measure differences in the homogeneity of tastes and in the public sectors across communities, which of the three data sets they use, and the time periods chosen, the results are always the same (with one exception described below). Municipalities did not become more homogeneous over time in terms of any of the proxy variables for the taste for public services and the municipalities' public sectors did not become more dissimilar. Quite the contrary. To give one of many examples, in the municipalities database, one measure of homogeneity fell between 14% to 31% from 1880 to 1992 for race, nativity, and the proportion of young adults in the municipalities. Over the same time period, a measure of the variation in per capita taxes across the municipalities fell by nearly half, and the variation in school district taxes fell even more.⁵

The one exception was the race proxy for tastes in the greater Boston area data set. Near the end of the sample period there was an increasing stratification of blacks across the ninety-two municipalities. But there is considerable evidence to suggest that this was the result of discrimination against blacks and not Tiebout sorting over public services.

RS conclude that mobility in the U.S. has been dominated over the past 150 years by factors other than Tiebout sorting over public spending and taxes. Neither implication of the Tiebout hypothesis is observed in their data sets. There is no evidence of stratification by demographic characteristics, wealth (home ownership), or income across

³ The moving cost data are in *Ibid.*, pp. 1655-1657.

⁴ The measures are described in *Ibid.*, pp. 1158-1161.

⁵ *Ibid.*, Table 2, p.1161 and p. 1649. The results for the three data sets are presented and discussed on pp. 1161-1172.

municipalities. If anything, municipalities have become more mixed in terms of tastes for public services. Possibly as a result of this, municipal public sectors in the United States have become more similar over time, not less similar as Tiebout predicted. Tiebout sorting does not appear to have been an important phenomenon in the United States.