INTRODUCTION

Federal taxes and spending have long been distributed unequally across geographic areas in the United States. Summarizing 24 years of scrupulous annual reports entitled *The Federal Budget and the States*, Senator Patrick Moynihan (2000) writes

In general residents of states in the Northeast and Great Lakes regions pay much more in Federal taxes than they receive back in Federal spending, while many Sunbelt and Great Plains states get more from the Federal government than they send to Washington in taxes.

This inequality in the federal balance of payments (i.e., federal spending net of federal taxes) is “one of the best-kept secrets in American politics,” according to journalist Malcolm Gladwell (1996), who reports “it strongly suggests… that the decline of many northeastern American cities may be due not just to mismanagement—as is now popularly imagined—but to the emptying of their coffers by the federal government.” A commonly cited cause for this inequality is the failure of the federal tax and transfer system to make adjustments for geographic differences in income and costs of living (e.g., Moody and Hoffman, 2003).

Although economists have helped to measure geographic inequalities in federal taxation and spending, they have provided surprisingly little guidance about the positive or normative ramifications of these inequalities. This lack of guidance makes it difficult to evaluate the economic consequences of these inequalities or the desirability of policies which alter them. In recent years, members of Congress have proposed using local cost-of-living indexation for taxes (the Tax Equity Act), the poverty line (the Poverty Data Correction Act), and Social Security payments (the COLA Fairness Act), although none of these proposals have been passed. In 2005, the President’s Advisory Panel on Tax Reform suggested that federal tax deductions for local and state taxes be eliminated, effectively raising taxes in areas with high local government expenditures, and that the deduction for mortgage interest be capped according to local housing prices, giving home owners a larger tax break in more expensive areas. Although none of these policies have yet been instituted, an increasing number of tax filers have had these deductions effectively eliminated because of the growing coverage of the Alternative Minimum Tax due to inflation. Whether or not these changes in the geographic distribution of federal taxes are fair or efficient remains largely unanswered.

UNEQUAL FEDERAL TAXATION ACROSS REGIONS

In traditional models of local public finance, such as Tiebout (1956), variations in local taxation generally match levels of local government spending, and workers locate efficiently by choosing the community with the tax and spending mix they most prefer. At the federal level, as seen in Wildasin (1980), the link between taxes and spending does not necessarily hold locally, and workers may locate inefficiently in order to minimize their federal tax burden net of their federal benefits. Assuming federal government purchases benefit individuals equally across the country, such as with national defense, the economic principle which makes federal taxes—henceforth taken to include transfers—efficient is quite simple: a worker’s nominal (unadjusted for local cost of living) federal tax liability should not depend on where that worker lives.

Yet, because of federal income taxes, if a worker is paid a higher wage in one area relative to another, say in New York City relative to Columbus, then that worker pays higher federal taxes in New York than in Columbus.1 Unless this tax difference is compensated for in higher levels of federal spending, this causes inefficiency, as workers are given a tax incentive to leave high-wage cities like New York in favor of lower-wage cities like Columbus. Thus, across the country, the federal tax system may affect the distribution of employment across cities and with them the distribution of wages and property values.
It is important to understand that the geographic federal tax and wage differences emphasized here are between otherwise identical workers. The idea is that federal taxes create a “horizontal” redistribution of incomes across workers in different cities who do not differ in any inherent “ability to pay.” The composition of worker abilities may also differ by city: workers in New York may also pay higher taxes simply because more skilled workers, who would earn higher wages regardless of where they live, tend to live disproportionately in New York. The geographic inequality in federal taxes due to the geographic inequality of worker abilities is simply part of the “vertical” redistribution of income seen in traditional analyses of income taxation.

One difficulty with analyses which present geographic differences in federal taxation across areas, such as *The Federal Budget and the States*, is that they do not disentangle this vertical income redistribution between workers of different skills from the horizontal redistribution across geographic space, which should be their ultimate source of concern. Complaints that taxes are distributed inequitably across regions are more justified if the federal government is redistributing income from workers in New York to otherwise similar workers in Columbus, than if it merely redistributes from the rich of New York to the poor of Columbus. In fact, given the mobility of workers, the federal government is arguably in a better position to redistribute income vertically than are local governments (Brown and Oates, 1987).

The amount of horizontal redistribution which occurs at the federal level depends fundamentally on the effective marginal federal tax rate which workers face. This rate needs to include the federal income tax and effective payroll tax rates, netting out later benefits, as well as some other taxes and transfers. Since mobility decisions can also occur within state, such as whether to live in New York City or Syracuse, a portion of state income taxes should also be thought of as “federal,” as should state sales taxes, since they effectively tax wage income. Furthermore, the marginal tax rate should incorporate the phasing in and out of explicit transfers, such as the Earned Income Tax Credit, and means-tested programs such as Medicaid and Temporary Assistance for Needy Families, in so far as eligibility criteria, such as the poverty line, are not adjusted geographically.2

Interestingly, incorporating transfers and means-tested programs implies that many low-income workers may face the highest effective marginal tax rates (Kotlikoff and Rapson, 2007), giving them the greatest incentive to move in response to wage differences. While low-skilled workers are generally less mobile than high-skilled workers across metropolitan areas (Bound and Holzer, 2000), wage differences between a central city and nearby rural areas, across which mobility is rather easy, are often quite substantial. Firms in New York City may find it very costly to lure low-skilled workers out of rural upstate New York since once they pay their workers enough to cover rent, food, and other necessities, these workers may no longer qualify for many of the federal and state benefits they would receive if they worked in a lower-paying job in the cheaper countryside. This could lead to a relative shortage of low-skilled workers in large cities, possibly lowering the wages of complementary high-skilled workers. On the other hand, undocumented workers, who typically pay some taxes but, in theory, do not forego benefits (Hanson, 2005), may find it relatively advantageous to locate in larger cities like New York.

Higher-income workers may face different marginal tax incentives across areas because they are more likely to itemize their tax deductions, which include deductions for state and local taxes as well as home mortgage interest. These tax benefits of owner-occupied housing, which should also include the imputed rent from owner-occupied residences that goes untaxed, appears to lower tax liability in areas which are more expensive (Gyourko and Sinai, 2003). Although the vertical redistribution due to these tax benefits is widely acknowledged to be regressive, estimates of the unequal geographic distribution of these benefits do not disentangle the vertical from the horizontal components of this distribution. Ultimately, the horizontal distribution of these tax benefits depends on how otherwise identical individuals change their consumption of housing and local government goods in different cities.

**THE DEBATE OVER WHETHER TO INDEX FEDERAL TAXES AND TRANSFERS**

As mentioned earlier, proposals have been made to index the federal tax system, Social Security payments, or the poverty line to local
costs of living. The economic literature has given some attention to some basic indexation schemes, although the insights gained from the literature do not appear to have been fully explored or evaluated. Kaplow (1996) argues that spatial cost-of-living adjustments for income tax brackets and exemption levels, as well as welfare limits, would likely cause workers to locate more efficiently, increasing productivity, although he acknowledges that complications due to amenity differences across cities could undo the benefits of such adjustments. Focusing on the case where cities differ in amenities, Glaeser (1998) argues that cost-of-living indexation of federal transfers would be inefficient, since transfers to high-cost areas buy fewer goods, and as it would induce too many workers to live in high-cost areas, causing excess congestion in housing and labor markets. Knoll and Griffith (2003) find merit in both of these views, but argue that instead of cost-of-living indexation, workers’ taxable incomes should be adjusted by dividing them by regional pretax salary levels. Kaplow (1996) considers a similar scheme, but dismisses it as impractical, largely because of measurement problems, although perhaps without seeing all of its potential benefits.

While there are great merits to this literature, it falls short in a number of ways. First, in its theoretical underpinnings, the literature does not take into account general equilibrium changes in employment, wages, and cost of living across cities due to taxation. Second, it does not consider differences in the federal balance of payments comprehensively, which should also include federal tax deductions, transfers, and spending. Third, none of the analyses indicate the magnitude of welfare losses or gains that might occur from indexing the current tax code according to its proposed schemes. These holes in the literature are ones which my research makes considerable progress in addressing.

FURTHER RESEARCH NEEDED IN THIS AREA

Although cities such as New York do pay too much in federal taxes relative to cities like Columbus, reforming taxes to correct for these inequalities faces daunting challenges. As low-wage areas gain at the expense of high-wage areas, federal representatives from these former areas may block any attempt to equalize the distribution of federal taxes, especially as the gainers of this system in the United States appear to receive disproportionate political representation in the Senate (Moynihan, 2000). Nonetheless, the difficulty of reform should not preclude further analysis and the collection of data to help our understanding of how federal taxes and transfers affect the distribution of employment, income, and prices across the country. Understanding the impact of the unequal distribution of federal taxes and spending would be aided by improving our understanding of four key questions:

- **How much do workers’ wages depend, causally, on which city they live in?** Intermunicipal wage differentials are the main determinant of horizontal federal tax differences across geographic areas. Correct measurements of these differentials would not only enable better measurement of these tax differences, but make it possible to index federal taxes to local wage levels. Although some promising work in this area has begun (e.g., Glaeser and Maré, 2001), measuring these differentials is complicated by differences in the unobserved abilities of workers across cities, as well as heterogeneity in wage differentials according to skill and wages over time.

- **In terms of real wages, how elastic is local labor supply measured in employment?** Many conventional models assume that local labor supply is perfectly elastic, so that additional taxes are capitalized into immobile factors such as land. However, if local labor supply in a metropolitan area is not perfectly elastic, then workers who do not move in response to higher taxes may bear some of the additional tax burden, even in the long run. Work along the lines of Blanchard and Katz (1992) and Bound and Holzer (2000), which attempts to measure this elasticity, should help to determine how the incidence of additional federal and local taxes is distributed across workers and other factors.

- **How much does an uncompensated local tax on workers reduce local employment?** This quantity determines the excess burden of unequal federal taxation due to how taxes make workers locate inefficiently across cities. Theoretically, this depends on how elastic local supply and demand curves are for labor, as well as possible feedback effects
in the housing market. While some careful work in this area has been done (e.g., Bartik, 1991), the difficulty of controlling for local expenditures and economic shocks makes this quantity challenging to measure, both in the short and long run.

• *Do cities naturally grow to efficient sizes or are they typically too large or too small?* If cities like New York naturally grow to their efficient sizes, then federal taxes will tend to make larger cities like New York too small. On the other hand, if New York is too big, then perhaps higher federal taxation in New York has helped to shrink this city and inadvertently improved overall welfare. While some existing research suggests that most cities tend to be too big (Abdel-Rahman and Anas, 2004)—possibly including smaller, less-taxed cities—these results are far from conclusive and have yet to be confirmed empirically.

Understanding these four issues better would not only help policy makers make better sense of the causes and consequences of unequal federal taxation and spending across regions, but also improve our understanding of how local economies function and are affected by local and federal fiscal policies.

**Acknowledgements**

This is a piece inspired from Chapter 1 of my dissertation (Albouy, 2007), which contains a detailed theoretical and empirical analysis. I would like to thank Jane Gravelle, Jim Hines, Therese McGuire, Joel Slemrod, David Wildasin, and William Strange for their help on this piece. Furthermore, I am grateful to the Burch Center for Tax Policy and Public Finance and the Fisher Center for Real Estate and Urban Economics for their financial assistance. Any mistakes are my own.

**Notes**

1 More broadly, Columbus can be taken to represent the national average. I would normally have reservations about calling a city “average,” but apparently Columbians make use of the fact that they represent America to attract companies (such as fast-food chains) to test their products there, earning it the nickname “Test Market, USA.”

2 On the other hand, local taxes levied at the intrametropolitan area, should not be included since they are closely tied to local spending levels and are unlikely to affect a worker’s decision of where to work.

**References**


