Fiscal Research Program

THE EFFECT OF STATE INCOME TAX STRUCTURE ON INTERSTATE MIGRATION

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Executive Summary

There has long been concern regarding the implications of state and local fiscal policy on the location decisions of firms and individuals. Many researchers have attempted to answer the question, "Do higher taxes repel economic development as measured through the migration of firms and individuals?" Unfortunately, there have been few consistent findings. Researchers who study the impacts of fiscal incentives on firm location and employment find that rarely does any one fiscal incentive impact business decisions, but rather what matters is the entire package of existing public services and taxes in addition to new incentives.

Less research has focused on how individual's migration behavior is affected by taxes. This is an important issue for many state and local governments, and Georgia is no exception. Over the last ten years, the state has significantly increased the tax preferences for the elderly resident population of the state. Retirees can exclude up to $14,000 of income per tax filer and in addition can exclude all social security income from state income tax. Many local jurisdictions give property tax reductions to elderly residents for at least a portion of property taxes. Have these tax abatements affected the level of migration of the elderly to the state? At the same time, Georgia's personal income tax is a relatively flat tax, with a top tax rate that is similar to that found in many other states. If the state reduced its income tax rate, would working individuals move to Georgia to take advantage of the lower tax rate? If the state increased the tax rate, would individuals leave the state to work elsewhere? These are largely unanswered questions.

This research paper addresses the issue of whether state income tax treatment affects the location decision of individuals. There have been some estimates of the effects of tax differences on the migration patterns of individuals, but this is a hard issue to research. Data are often not available and it is very difficult to compute all of the taxes faced by individuals. Also, taxes are not the only thing that influences people's decisions of where to live. Other amenities are important, including public services, weather, proximity to family, and employment opportunities. In fact, individuals may be compensated for higher taxes by these other amenities. For example, a high taxing state might have a terrific system of public education, which individuals are willing to support via higher taxes. Higher wages may be offered to compensate for higher taxes. Unless we

try to separate these different influences, it will be very difficult to offer policy advice regarding whether or not individual's migration patterns are affected by taxes.

This paper considers only one specific tax–the state individual income tax–and attempts to determine whether the tax itself affects state-to-state migration behavior. Using data on migration of individuals over a five-year period, we analyze whether the income tax directly influences the migration decision. Many studies find little evidence to support a big influence of individual taxes on migration. Part of this may be that, if individuals are compensated for taxes via other amenities, the effect of taxes themselves simply do not show up in the analysis. In our research we find that in certain areas of the country, higher wages in part compensate individuals for higher income taxes. This could explain why in most studies, taxes rarely have a big effect on migration. Interestingly, in the Southeast region, wages do not seem to compensate for income taxes. This could be due to the fact that in the Southeast, the package of individual taxes (including the income tax) are more similar across states than in regions such as the Northeast. This should not be taken to suggest that state income taxes have no impact on migration in the Southeast, but rather, that we should take a better look at other taxes such as property and sales taxes. Also, since much of the policy activity around state income taxes in Georgia and other states is targeted at the elderly, it would be very useful to study migration patterns of the elderly more specifically. Such a study would require more specific data.

I. Introduction

Over the past several decades there has been a significant amount of literature which examines the determinants of human migration. Much of the empirical literature of the last three decades has its roots with the investment model of migration developed by Sjaastad (1962). In this model, potential migrants choose to move if the utility derived from a move exceeds the utility derived at the individual's origin location. A move is seen as an investment which increases total life-time utility. What has lead to much of the empirical literature since the 1980s is the relationship between amenities of the origins and destinations and net lifetime income.

As summarized by Graves (1980), the migration literature falls into two camps with respect to Sjaastad's original investment model of migration. In one case, migration occurs because of real and changing differences in the utility associated with specific amenities. In this world, capitalization of amenity differences is not complete so that real differences in income

opportunities exist among jurisdictions. Another view of the migration process is that amenity differences (broadly defined) are captured in wage and rent differentials. In an equilibrium world, there would be no migration at the margin as amenity differences are fully reflected (capitalized) into wages and rents. In this view of the migration decision, migration occurs due to the movement from an equilibrium situation in response to a new set of preferences--people move because their tastes and preferences change, which alters relative prices and real incomes.1 Empirical findings to date have shown some support for both models (Borjas, Bronars and Trejo 1992; Clark and Hunter 1992; and Greenwood's 1985 survey).

In either general model of migration, the potential of capitalization (full or in part) of amenities (physical and other) into income has significant consequences for the estimated impacts of these amenities on the migration decision. In the empirical examination of the effect of fiscal variables on the migration decision, the capitalization hypothesis has been downplayed. In fact, there has been relatively little empirical research devoted to the impact of tax variables on the individual migration decision (exceptions include Fox, Herzog, and Schlottman, 1989; see also a survey found in Cebula, 1979).2 In cases in which taxes are considered, there has been no test of the capitalization hypothesis although there is some evidence that at least for state personal income taxes, capitalization exists and is a function of some distinct personal characteristics related to job skill as well as industry (Wallace, 1993).

This paper seeks to fill two gaps in the migration literature. First, the migration decision studied here is the state-to-state migration decision and the effect of the state personal income tax on this decision is highlighted. The limited evidence on the effect of fiscal variables on migration suggests that taxes may have some impact on at least part of the migration decision (leaving) at a local level (Fox, et al. 1989), but there is almost no evidence on the impact of state-level taxes on individual migration. There are a few important state level taxes, primarily the income and sales taxes. In most states, the income tax is a matter of state policy only, while the sales tax is a function of both state and local policy. State income tax revenues account for approximately 34 percent of total state revenues, and the frequency with which state policy makers tinker with state

[1] This dichotomy in the literature is discussed in many other papers including Knapp and Graves (1989), Greenwood and Hunt (1989), and Clark and Hunter (1992), among others. Some of these authors present slight alternatives to the dichotomy presented here.

[2] There is a more expansive literature on the impacts of tax related variables on the economic development, measured via employment and firm location (Wasylenko and McGuire, 1985).

income tax systems suggest that state income tax rates are important to the population. The second addition of this paper is that the migration decision is estimated using micro-level data that specifically account for the potential of tax capitalization.3 The importance of the tax variable on the migration decision is directly estimated by comparing tax burdens associated with the income tax at the origin and potential destination locations. This approach allows us to examine how important relative taxes are in the move decision, rather than the typical approach of estimating the importance of fiscal and other variables at the origin or the destination. Also, by estimating state income taxes based on potential wages for individual observations, we eliminate the problem of using average tax rates for the income tax.

II. Background

There is a wide variety of migration literature that examines the reasons for moving. In most cases, the models are derived from the household utility maximization problem which was posited in a migration framework by Hicks (1932), Todaro (1969), and Sjaastad (1962). The limitations of aggregate approaches to studying the effects of fiscal and other variables are obvious--the aggregate data and measures of tax burdens mask the true effect of differences in fiscal variables among individuals on the migration decision.

The theoretical basis of the basic migration model used here is the classic utility maximization model of consumer behavior. The potential migrant is viewed as a neo-classical consumer, concerned with maximizing utility given a number of different location opportunities. Utility is a function of the consumption of private and public goods and amenities of each location. Utility at the origin defines the level of utility that an alternative location must exceed to make the household migrate. The potential migrant household maximizes utility at the origin subject to their budget constraint to yield their indirect utility function:

$$V_o = f\,(I_o\,(X_o),\, A_o / Z) \qquad (1)$$

where I = real income weighted by the probability of obtaining employment

A = location specific goods and amenities not affecting real income

[3] State income, average property and average sales taxes are included.

X = location specific amenities affecting real income

Z = individual characteristics

Location specific amenities include taxes, weather, public expenditures, etc. The indirect utility function at any potential location, *j*, (other than the origin) can be expressed in a similar manner:

$$V_j = f(I_j(X_j), A_j / Z) \text{ for all } j \neq o \qquad (2)$$

The probability of obtaining employment is assumed to be one at the origin if the individual is employed.

If the value of the indirect utility function at any non-origin location is greater than that at the origin, the household will choose to move ($Y=1$). This can be represented by the following probability:

$$P(Y=1) = Prob(V_j > V_o) \text{ for any } j \neq o \qquad (3)$$

The differences in income and amenities between the origin and all possible destinations thereby define the likelihood that a potential migrant will actually move.

While we usually think of wage differences as the major reason for differences in utility at various locations, the utility may be different for a variety of reasons. People may move because their preference for amenities change (weather or education for example); or destinations may become "better" (schools in a state face reduced funding and decline in quality).[4] In this case, the change in the family's demand for an amenity, and not wage differentials, may be the driving force in migration. Another model of migration is the more traditional disequilibrium model which views migration as a means to eliminate differentials in real earnings (Sjaastad 1962, and Greenwood and Hunt 1989). In this case, real income differentials exist and families move to increase their earning potential.

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4 This equilibrium hypothesis was proposed by Graves and Linneman (1979) and used by Graves (1980) and others in their studies of migration. This hypothesis holds that amenity differentials (including fiscal amenities) are capitalized into wages and rents such that pure wage gains cannot be made by moving unless there is a change in the demand for non-traded amenities.

It is important to note that even in the disequilibrium case, wage differentials may be compensating in part because amenities are partially capitalized in wages.5 Even given this complication, why doesn't everyone move to the same place or just stay put? Obviously, families have different preferences for amenities which leds them to different locations, moving costs can be prohibitive to some destinations, average capitalization yields different wages for different individuals, and the probability of finding employment is not the same for everyone. There is some empirical evidence that wage differentials are in part affected by differentials in living conditions, climate, crime rates, and taxes, among others. Henderson (1982) specifically sought to estimate the value of amenities that is reflected in wage differentials. He found that crime (murder rate in the SMSA) and weather were significant amenity determinants of wage differentials.6 While amenity capitalization is not the central theme of Price and Mills (1985), they also find that amenities such as crime and weather influence wage differentials.

In all likelihood, migration is due to both amenities and job-related factors as well as subjective judgements of the potential migrants about the risk of a move. Although compensating wage differentials exist, they may not fully compensate individuals for differentials due to differences in tastes among the population, a lack of information, wage rigidity, and the like. What is important is that there is likely to be some capitalization of amenities including taxes into wages, so that real income gains from moving may not be as large as nominal income differentials suggest. This is particularly true for state income taxes, which have largely been found to have little impact on migration in previous studies. The interpretation of these determinants in previous studies may be incorrect due to capitalization and this is a central point in this paper.

A wide variety of migration determinants have been analyzed in the migration literature. Recent migration studies have begun to focus on environmental effects and fiscal effects of migration versus the more traditional weather, crime amenities and pure economic factors. Schacter and Althaus (1989) specifically test an equilibrium model of aggregate net migration and find that average state and local taxes negatively influence in-migration and positively affect out-migration. They do not find a significant relationship between migration and public services. Fox, Herzog and Schlottman (1989) test a micro-level model of metropolitan migration using a binary

5 Amenities include government services, taxes, and population characteristics.

6 Henderson also lists amenity variables that he rejected based on insignificant or perverse results. These included: percent of the population below the poverty line, percent of the population black, annual precipitation, pollution measures, and state part and water resources.

logit specification. Using Census micro-data, they find that average income and sales tax rates (tax revenue divided by personal income) in the individual's place of residence are not significant predictors of the general "move" decision, however, they find that expenditures are a much more important determinant of metro migration and property taxes encouraged individuals to leave a metro area while income taxes discourage entering a metro area.

Mueller's work (1982) provides a comprehensive analysis of the migration choice of households, but does not consider the impact of fiscal variables. By examining all of the determinants to date in one migration model, Clark and Hunter (1992) are able to compare the relative effect of economic opportunity, amenities and fiscal variables on migration. They use aggregate net migration figures by age group and find that income and death taxes do affect net migration of certain age groups. Borjas, Bronars, and Trejo (1992) use a micro-sample from the National Longitudinal Survey of young men and test for the effects of different returns to skill levels across the country. They find that returns do differ across the country and these differences encourage migration to alternative locations. They do not however, control for fiscal effects.

A summary of the literature on individual migration in the U.S. demonstrates that empirical techniques have become more sophisticated and the use of individual-specific characteristics to describe migration has increased. However, there has been little advancement in the use of individual-specific tax variables in any context, and especially in a fully specified migration model which considers the effects of various alternatives on the migration choice. Part of the reason for this is that it is difficult to measure the difference in taxes paid by any one individual in two different locations. In this paper, state and federal individual income taxes are calculated for each sample observation for the origin state and all alternatives, which adds to the richness of the fiscal variables.7 This is done using a state-level computer simulation model of state personal income taxes.

7 Federal income taxes were also calculated due to the deductibility of these taxes in some states.

III. Empirical Model

Recalling the probability model from equation (3), we can express the probability of a move ($Y=1$) for each n individuals as:[8]

$$\text{move} = \alpha_0 + \sum_{j=1}^{k} \beta_j (I_o(X_o) - I_j(X_j)) + \sum_{j=1}^{k} \gamma_j (A_o - A_j) + \sum_{d=1}^{m} \lambda_d Z_d + \varepsilon \quad \text{for all j} \neq \text{o} \qquad (4)$$

Equation (4) says that for each individual, the probability of a move is a function of the income differential (I) between each potential state j and the home state o (and the income differential is a function of various amenity and labor market characteristics, X, which are capitalized into wages), non-capitalized amenity differentials, A, and personal characteristics and transportation costs which affect the general propensity to move (Z, of which there are m).

As previously noted, many authors have found support for at least partial capitalization of various amenities into income differentials (Graves and Linneman 1979). The main addition in this paper is a test of the application of the capitalization of the state personal income tax and the impact on state-to-state migration. The state personal income tax is arguably one of the most

where the amenity differential (X i - X j) in this case refers to amenities that are capitalized into income differentials and V is a vector of characteristics which may affect the level of capitalization (including industry and job-specific characteristics). The dependent variable, the income

8 This formulation is derived assuming that the error terms are normally distributed and their difference is distributed normally with a mean of zero and variance of σ^2 so that the probability model is the usual probit model (individual subscripts eliminated).

important taxes at the state level. Wallace (1993) finds that state income taxes are capitalized into wages for certain types of jobs in certain types of industries.9 The results from the literature are used here to develop the empirical specification of the income differential equation. The structural equation for the income differential is:

differential between origin and potential destination, is calculated as the average wage for each potential migrant in the home and destination state. Equation (5) is estimated first to obtain a predicted value of the income differential and the predicted value is used in the probit model of equation (4) to determine the probability of a move.

IV. Data and Variable Construction

The migration sample was constructed from the 1990 Current Population Survey, Annual Demographic File (CPS) by taking the highest income earner for each family reporting wage and salary income for 1989.10 The highest income earner was chosen on the assumption that if the migration decision is affected by income, it is affected more by the highest income in the family than by other incomes in the household. The data for the individual also contain pertinent household characteristics such as family size, age of household head, etc.

To determine the choice set facing the potential migrant, one might wish to consider all states as alternatives. Although this has merit in a theoretical sense, few if any potential migrants really consider all states in a migration choice.11 The fact is that for any one origin, a few states are much more likely to be chosen than other states. The choice set was therefore constructed as follows. By region, we tabulated the destination states for all individuals who migrated between states from 1989 to 1990. For example, for individuals living in the Northeast region in 1989 and moving by 1990, the most popular destinations were New York, New Jersey, and Florida. These most popular destinations were then considered the choice set for all potential migrants from the Northeast region.12 All of the regression estimates are made using individual observations by region due to the asymmetric nature of the choice sets.

For the income differential equation (equation (5)), we constructed a wage differential which is the difference in the average wage by industry and occupation in the origin and each destination state. Each individual in the sample is therefore assigned the nominal wage in their

10 The CPS contains information on state of residence in year *t* and year *t-1*.

11 See Mueller (1982).

12 The resulting choice sets are as follows for each origin region:
Northeast: New York, New Jersey and Florida; Southeast: D.C., North Carolina, South Carolina and Florida; West: Idaho, New Mexico, Nevada, and Alaska; Midwest: Ohio, Illinois, Michigan, and Florida.

origin state and the nominal wage in their potential destination states, based on industry and occupation. The OLS regressions are then run by region for each origin-destination choice separately. For example, for individuals in the sample who originally reside in the Northeast region, we assign them the average wage for their industry and occupation for their home state as well as that for New York, New Jersey, and Florida. For this subset (Northeast region origin), we run a regression of the wage differential in the home state and New York to determine the predicted differential. We do the same for New Jersey and Florida, and then repeat the process for the three other regions. We employ this estimate of wage differential as we assume that individuals will respond to expected real differences in their income which are reflective of the "going wage" in the states. The predicted wage differentials will reflect the capitalization of the relative amenities in the origin and destination states. While the actual wage that the individuals receive in the origin and destination states could be higher or lower, this will be controlled for in the actual migration equation. Also, this technique allows us to impute destination wages to individuals who do not decide to move.

The specific independent variables in the wage differential equation are guided by the wealth of previous research and include differences in labor market characteristics (EMPGRO-growth in employment by industry), differences in fiscal amenities (SMTAX--state effective marginal income tax rate, PTAX--average property tax rate, SALTAX--average sales tax rate, EXPEDPC--per capita expenditures on education, EXPWELPC--per capita expenditures on welfare), differences in non-fiscal amenities (DDAYS--degree days number of days the temperature is above 65 degrees, MHOUSE-median house value), differences in average human capital (ED--percent of population enrolled in high school), and dummy variables to control for differences in the returns to various occupations and industries (OCi and INDi).13 A summary of the variables included in both equations is given in Table 1.

The sales (SALTAX) and property tax (PTAX) variables are average effective rates: state and local sales tax revenue divided by personal income and property tax

13 The dummy variables for occupation are: OC1 = executive, professional, OC2= technicians, sales, administrative support, OC3=Service (all others are the omitted category); for industry: IND1 = Manufacturing, IND2= Wholesale and retail trade, IND3=Finance, insurance, real estate, IND4=Personal services (all others are the omitted category).

TABLE 1. VARIABLE DESCRIPTION

Variable Name	Description	Source
SMTAX	Difference in effective state personal income tax rate	Calculation of CPS data
EMPGRO	Difference in growth in employment (by relevant industry)	Bureau of Economic Analysis
EXPED	Difference in per capita expenditures on education	Census of Governments
EXPWEL	Difference in per capita welfare expenditures	
PTAX	Difference in average property tax rate as a function of personal income	Census of Governments
SALTAX	Difference in average sales tax rate as a function of personal income	Advisory Commission on Intergovernmental Fiscal Relations (ACIR)
DDAYS	Number of days with temperature above 65 degrees (difference between states)	ACIR
ED	Difference in the percent of population enrolled in high school	Statistical Abstract
MHOUSE	Difference in median house value	
INDi	Industry dummy variable	Statistical Abstract
OCi	Occupation dummy variable	
AGE	Age of primary earner	Statistical Abstract
TENURE	Housing tenure (=1 if owner, =0 otherwise)	CPS
KIDS	Number of children	CPS
MARS	Marital status (=1 if married, =0 otherwise)	CPS
SPWORK	Dummy variable for employed spouse (=1 if employed, =0 otherwise)	CPS
WAGEiH	Predicted wage differential for potential destination state *i*	CPS
WDIF	Difference in industry employment concentration	Estimated
	Difference between an individual's wage and the average for that individual's occupation and industry in the origin state	BEA Computed from CPS

revenues divided by personal income. State effective marginal income tax rates (SMTAX) were calculated using a microsimulation model of state and federal taxes. The effective marginal tax

rates were calculated by increasing adjusted gross income reported by the individuals in the CPS by $100 and recalculating tax payments. Using these calculated effective marginal tax rates, a file of average state effective marginal tax rates by state, industry, and occupation was created. This file contains approximately 2,500 effective state marginal tax rates (50 state * 10 industries * 5 occupations). Each observation was assigned the state effective marginal tax rate for their industry and occupation in their home state and all potential destinations.

The tax variables may be capitalized into wages such that states with higher effective income, property and sales tax rates may have higher nominal wages. If no capitalization were present, then the tax rate differentials would be uncorrelated with wage differentials and we would therefore expect migration decisions to be influenced directly by tax differentials. Our expectation is that income taxes are more likely to be capitalized than the less individual specific sales and property taxes.

The expenditure amenities are expected to influence wage differentials if they are valued in a consistent way among residents in a state. For example, education is usually valued in a positive way. If this were true, we would expect wages to be lower in states that support higher overall spending in education. The sign on the welfare expenditure category may be less clear-cut. On the one hand, if welfare is perceived as a good aimed at redistribution and this redistribution is valued, residents may take somewhat of a wage cut to support this activity. On the other hand, residents may want to be compensated through higher wages to support the poor or anything that lowers their after tax income.

Using data from the Bureau of Economic Analysis, EMPGRO is calculated as the difference in the growth in employment in industry *k* in the origin state *o* from 1985 to 1989 and the same growth in potential destination state j:

$$((EMP_{89ok} - EMP_{85ok})/ EMP_{85ok}) - (EMP_{89jk} - EMP_{85jk}) / EMP_{85jk})$$

A higher value of this growth variable suggests upward pressure on wages and would be positively correlated with the wage differential.

The sign on DDAYS is ambiguous among states with similar climates since the variation is relatively small among states within a region. Across regions, if warmer climates are generally preferred, we would expect that warmer states could support lower wages as the amenity is capitalized in wages. ED represents an investment in human capital and all else held equal, we would expect to see higher wages in regions with higher investment. The occupational and industry dummies are an attempt to capture general variations in wages within occupation

categories that are missing in the remaining variables. MHOUSE is used as a cost of living measure and it is expected to be positively correlated with wage differentials.

The migration equation (equation (4)) is estimated as a probit equation where the probability of a move is a function of the predicted wage differential for each of the choices (again--someone from the Northeast will have three predicted differentials, one each for the difference between the home state and New York, New Jersey and Florida, other regions have four choices each), migration propensity variables (AGE--age, TENURE--housing tenure in the origin state, KIDS--number of children, MARS--marital status, SPWORK--dummy variable for employed spouse), probability of finding employment (EMP--employment concentration differential one for each origin-destination choice), and a control for an individual's relative earnings in their home state (WDIF).

Employment in an industry relative to total employment is used as a proxy for the probability of obtaining employment. As this is measured relative to the origin employment concentration for a particular industry, a low ratio suggests a strong labor market for that industry in the destination relative to the origin. EMP is calculated as:

$$(EMP_{ok} / TEMP_{o}) - (EMP_{jk} / TEMP_{j})$$

where EMP_{ok} is employment in industry *k* in the origin state and $TEMP_{o}$ is total employment in the origin state and EMP_{jk} is employment in industry *k* in alternative state *j* and $TEMP_{j}$ is total employment in alternative state *j*.

The dependent variable in equation (4) is the dichotomous variable move (=1) or no move (=0). The predicted value of the wage differential is used in the estimation of equation (4), and should be negatively correlated with the probability of a move. However, if there is significant capitalization of fiscal and non-fiscal amenities, these nominal differentials will not matter as much in the migration decision as if no capitalization were present. It is expected that the greater the capitalization of the state income and other taxes into wages, the less significance the predicted nominal wage differential will have in explaining the move decision.

In equation (4) personal characteristics are considered important determinants of the migration decision. AGE, TENURE, MARS, KIDS are all entered to reflect costs associated with a move. The relationship between moving and age is expected to be negative as found in Boehm, Herzog and Schlottmann (1991). This is due to an increased cost of leaving an area due to personal and profession ties to the origin state. Housing tenure is expected to negatively influence migration, again due to the increased costs of leaving an owner-occupied house. The marital status

of the head of the household and number of children may also influence the ties to a given location as well. Finally, WDIF is included to capture wage variations that an individual receives in their home state. The larger the individual's wage relative to the average for their industry and occupation, the lower probability that they will move.

V. Results

The results of the migration and the income differential equations are presented in Tables 2 and 3. For each region, the names of the choice states are listed in the column headings. If we look first at the migration equations (Table 2), it is obvious that income differentials by themselves are not the driving factors in individual-level migration, much as has been found in the aggregate studies of Graves (1980) and Graves and Linneman (1979). Some earlier studies tended to find that the income differential variables were the "wrong" sign (positive) in many cases suggesting that higher wages in the origin state increased the probability of migration. In this study, we find a significant positive wage differential coefficient in only one case. There is also only one significant negative coefficient as well--that of individuals in the Southeast that look to Florida as a possible destination state.

The influence of the likelihood of getting a job (EMP_j) is a significant predictor of migration in some cases. For potential migrants from the Northeast, the relative strength of home job opportunities relative to New Jersey has a negative affect on the probability of migration. In the Southeast, a similar story holds for those considering Florida as well as for those in the Midwest. There is one positive EMP coefficient--for individuals in the Midwest looking at the possibility of a move to Illinois--which is contrary to expectations. Given the data in Table 2, it is hard not to conclude the personal characteristics of age and housing tenure are important forces in the migration decision in their own right, and the signs of these variables are as expected.

The wage differential equations give some insight into the potential reasons for the apparent insignificance of the wage differentials in the migration decision, and they also point out the importance of the state income tax among other variables in the migration decision. The data in Table 3 present the coefficient estimates of the wage differential equations. The income tax in particular shows a strong positive effect on wage differentials among the choice sets, particularly in the Northeast and West origin regions. To the extent that the income tax is capitalized, we would not expect to see migration highly affected by the tax rate.

TABLE 2. PROBABILITY OF MOVING (STANDARD ERRORS)[14]

Independent Variable	Northeast Choice Set: 1- New York 2 - New Jersey 3 - Florida	Southeast Choice Set: 1 - DC 2 - North Carolina 3 - South Carolina 4 - Florida	West Choice Set: 1 - Idaho 2 - New Mexico 3 - Nevada 4 - Alaska	Midwest Choice Set: 1 - Ohio 2 - Illinois 3 - Michigan 4 - Florida
Intercept	-0.788 *	-0.73 *	-0.389	-1.611 *
	(0.23)	(0.25)	(0.27)	(0.38)
AGE	-0.019 *	-0.015 *	-0.009 *	-0.017 *
	(0.002)	(0.003)	(0.003)	(0.002)
TENURE	-0.329 *	-0.521 *	-0.669 *	-0.645 *
	(0.07)	(0.07)	(0.087)	(0.07)
KIDS	-0.057	-0.068	-0.108 *	-0.145
	(0.03)	(0.04)	(0.034)	(0.087)
MARS	-0.131	-0.090	-0.21	0.543
	(0.16)	(0.18)	(0.20)	(.034)
SPWORK	0.065	0.059	0.186 *	0.215 *
	(0.08)	(0.07)	(0.083)	(0.07)
WAGE1H	-0.004	0.237	0.015	-0.399
	(0.02)	(0.62)	(0.03)	(0.31)
WAGE2H	0.032 *	0.002	-0.026	-0.015
	(0.01)	(0.02)	(0.03)	(0.03)
WAGE3H	-0.008	0.011	0.043	-0.043
	(0.13)	(0.01)	(0.03)	(0.03)
WAGE4H	NA	-0.032 *	-0.004	0.042
		(0.016)	(0.03)	(0.04)
EMP1	-0.433	-0.353	1.38	-3.116
	(0.84)	(0.51)	(1.27)	(2.11)
EMP2	-1.704 *	1.912	-0.974	3.706 *
	(0.76)	(1.32)	(0.98)	(1.60)
EMP3	0.002	-0.114	-0.203	-0.791
	(0.43)	(1.33)	(0.39)	(0.95)
EMP4	NA	-1.649 *	0.735	-1.399 *
		(0.78)	(0.68)	(0.47)
WDIF	0.027	0.017	0.032	0.003
	(0.05)	(0.06)	(0.023)	(.04)
Log-likelihood	-934.60	-877.59	-691.95	-1044.71

14 Standard errors were estimated using a bootstrap technique.

TABLE 3. WAGE DIFFERENTIAL EQUATIONS: WAGE IN ORIGIN - WAGE IN POTENTIAL DESTINATION (STANDARD ERRORS)

REGION 1: NORTHEAST

Independent Variable	Choice 1: New York	Choice 2: New Jersey	Choice 3: Florida
Intercept	-2.01 *	-0.85 *	5.05 *
	(0.21)	(0.23)	(1.52)
SMTAX	-0.04	0.05 *	0.07 *
	(0.03)	(0.02)	(0.02)
EMPGRO	10.41 *	1.61	5.01 *
	(1.36)	(1.37)	(0.93)
EXPED	0.002	0.001	.0009
	(0.001)	(0.002)	(0.001)
EXPWEL	0.005 *	-0.002 *	-0.0007
	(0.001)	(0.001)	(0.007)
PTAX	18.17	-8.13	-3.35
	(23.17)	(24.90)	(24.50)
SALTAX	-1.72	-10.01	-25.65
	(15.41)	(15.79)	(15.98)
DDAYS	0.25 *	0.137 *	0.25 *
	(0.07)	(0.07)	(0.076)
ED	0.007	0.007	0.017
	(0.016)	(0.02)	(0.016)
MHOUSE	-0.0003	0.0003	0.0002
	(0.003)	(.0003)	(0.0003)
IND1	1.74 *	1.50 *	-0.016
	(0.58)	(0.59)	(0.61)
IND2	2.35 *	1.43 *	1.75 *
	(0.27)	(0.27)	(0.30)
IND3	1.84 *	0.88 *	0.98 *
	(0.18)	(0.18)	(0.18)
IND4	2.34 *	1.56 *	1.46 *
	(0.18)	(0.19)	(0.18)
OC1	1.35 *	0.89 *	2.67 *
	(0.19)	(0.17)	(0.20)
OC2	1.31 *	1.03 *	1.37 *
	(0.20)	(0.16)	(0.18)
OC3	-1.54 *	-1.29 *	-0.45
	(0.17)	(0.27)	(0.27)
R-sq	0.10	0.07	0.09

TABLE 3 (CONTINUED)

REGION 2: SOUTHEAST

Independent Variable	Choice 1: District of Columbia	Choice 2: North Carolina	Choice 3: South Carolina	Choice 3: Florida
Intercept	-0.023	4.030 *	3.915 *	2.280
	(0.04)	(0.36)	(0.40)	(1.95)
SMTAX	0.0004	0.010	-0.002	0.004
	(0.0005)	(0.011)	(0.01)	(0.01)
EMPGRO	0.082	8.809 *	11.070 *	10.403 *
	(0.08)	(1.06)	(1.21)	(1.05)
EXPED	0.000	-0.007	-0.003	0.000
	(.02)	(0.003)	(0.003)	(0.005)
EXPWEL	-0.0001	0.001	-0.001	0.001
	(0.0001)	(0.002)	(0.002)	(0.001)
PTAX	1.424	-3.708	-7.12	-6.439
	(3.74)	(3.65)	(4.55)	(5.89)
SALTAX	4.372	5.449	7.21	10.288
	(3.81)	(6.69)	(5.74)	(6.71)
DDAYS	-0.007	-0.024	-0.188 *	-0.132 *
	(0.01)	(0.10)	(0.09)	(0.05)
ED	-0.0005	0.019	-0.010	0.0047
	(0.002)	(0.02)	(0.02)	(0.003)
MHOUSE	0.000	0.003	0.000	0.003
	(0.001)	(0.002)	(0.002)	(0.51)
IND1	0.065	-2.126 *	-2.067 *	-3.439 *
	(0.04)	(0.51)	(0.62)	(0.34)
IND2	0.033	-1.612 *	-2.265 *	-3.266 *
	(0.03)	(0.30)	(0.37)	(0.24)
IND3	.044 *	-1.947 *	-2.322 *	-2.427 *
	(0.02)	(0.22)	(0.27)	(0.20)
IND4	0.019	-3.302 *	-2.348 *	-3.625 *
	(0.02)	(0.20)	(0.24)	(0.22)
OC1	0.18	-0.226	0.455	-0.117
	(0.02)	(0.22)	(0.27)	(0.22)
OC2	0.010	3.489 *	3.267 *	3.584 *
	(0.01)	(0.20)	(0.26)	(0.21)
OC3	-0.018	0.572 *	0.900 *	0.334
	(0.02)	(0.27)	(0.33)	(0.27)
R-sq	0.02	0.12	0.08	0.13

TABLE 3 (CONTINUED)

REGION 3: WEST

Independent Variable	Choice 1: Idaho	Choice 2: New Mexico	Choice 3: Nevada	Choice 4: Alaska
Intercept	6.403 *	4.611	5.356	-2.40
	(2.48)	(3.53)	(3.29)	(6.64)
SMTAX	0.020 *	0.035 *	0.037 *	0.038 *
	(0.007)	(0.008)	(0.01)	(0.007)
EMPGRO	-0.084	-0.208	0.266 *	-0.321 *
	(0.15)	(0.16)	(0.22)	(0.13)
EXPED	0.006 *	0.005	0.012 *	0.0003
	(0.002)	(0.003)	(0.004)	(0.002)
EXPWEL	0.006 *	0.002	0.009 *	-0.002
	(0.003)	(0.003)	(0.004)	(0.003)
PTAX	-4.55 *	-1.601	-6.492 *	-0.535
	(1.96)	(1.01)	(2.61)	(3.81)
SALTAX	-0.879	-0.940	-1.892	0.044
	(0.57)	(1.03)	(1.16)	(0.12)
DDAYS	0.037 *	0.011	0.047 *	-0.009
	(-0.012)	(0.012)	(0.017)	(0.01)
ED	-0.011 *	-0.013 *	-0.016 *	-0.006 *
	(0.003)	(0.004)	(0.006)	(0.003)
MHOUSE	-0.002 *	-0.001	-0.004 *	0.000
	(0.001)	(0.001)	(0.003)	(0.001)
IND1	-2.31 *	-0.243	-1.398 *	0.874 *
	(0.27)	(0.29)	(0.41)	(0.26)
IND2	0.779 *	0.767 *	-1.110 *	0.706 *
	(0.19)	(0.21)	(0.31)	(0.19)
IND3	1.973 *	3.827 *	4.408 *	2.654 *
	(0.13)	(0.14)	(0.20)	(0.13)
IND4	-0.627 *	0.688 *	0.392 *	0.611 *
	(0.14)	(0.14)	(0.19)	(0.12)
OC1	1.631 *	1.810 *	1.888 *	-1.964 *
	(0.14)	(0.15)	(0.22)	(0.13)
OC2	-1.39 *	-1.745 *	-1.084 *	-1.711 *
	(0.12)	(0.13)	(0.18)	(0.11)
OC3	0.517 *	0.640 *	-0.645 *	-1.492 *
	(0.15)	(0.17)	(0.22)	(0.14)
R-sq	0.22	0.28	0.22	0.21

TABLE 3 (CONTINUED)

REGION 4: MIDWEST

Independent Variable	Choice 1: Ohio	Choice 2: Illinois	Choice 3: Michigan	Choice 4: Florida
Intercept	0.228	-0.342 *	-1.745 *	0.010
	(-0.18)	(0.15)	(0.71)	(0.42)
SMTAX	-0.0005	-0.028	-0.0003	0.021 *
	(0.003)	(0.08)	(0.008)	(0.01)
EMPGRO	0.022	-1.422 *	-0.954 *	-3.298 *
	(0.11)	(0.35)	(0.42)	(0.39)
EXPED	-0.0003	0.002 *	-0.001	-0.0003
	(0.0003)	(0.001)	(0.001)	(0.001)
EXPWEL	-0.0002	0.0004	0.002	0.000
	(0.0003)	(0.001)	(0.001)	(0.10)
PTAX	4.221	-0.694	12.806	14.231
	(3.00)	(9.21)	(10.49)	(9.92)
SALTAX	2.452	-1.300	15.406	0.277
	(5.72)	(14.98)	(14.16)	(14.70)
DDAYS	-0.004	0.054 *	0.019	0.023
	(0.01)	(0.02)	(0.02)	(0.02)
ED	0.001	-0.012	-0.007	0.010
	(0.003)	(0.01)	(0.001)	(0.01)
MHOUSE	0.000	0.0009	-0.001	0.001
	(0.001)	(0.001)	(0.16)	(0.001)
IND1	0.020	0.573 *	0.437 *	-0.027
	(0.05)	(0.14)	(0.14)	(0.16)
IND2	0.023	-0.001	1.156 *	1.398 *
	(0.04)	(0.12)	(0.14)	(0.14)
IND3	0.005	0.708 *	0.823 *	1.306 *
	(0.03)	(0.07)	(0.09)	(0.09)
IND4	-0.019	0.718 *	1.409 *	0.580 *
	(0.02)	(0.07)	(0.85)	(0.08)
OC1	0.017	-1.291 *	-1.557 *	0.349 *
	(0.03)	(0.08)	(0.89)	(0.08)
OC2	-0.010	-1.718 *	-0.064	-0.374 *
	(0.02)	(0.06)	(0.07)	(0.07)
OC3	0.056 *	-0.666 *	-1.416 *	0.541 *
	(0.03)	(0.10)	(0.12)	(0.11)
R-sq	0.02	0.12	0.12	0.06

In cases where the state personal income tax differential is significant, the tax accounts for between 5 and 40 percent of the wage differential across states. The income tax is capitalized into wages most in the Northeast and West regions relative to the choice states. For the West sample, there is evidence of a negative capitalization of property tax rates, which is contrary to expectations. This may be due in part to the influence of outliers like California where property tax limitations may have affected the relative property tax rate, relative to the other states. The results suggest little support for the capitalization hypothesis for property and sales taxes which may be due to the more local nature of property and sales taxes. Weather is important (and of opposite sign) in the Northeastern's wage differential and in Southeastern's wage differential. In the West, the expenditure variables, per capita education and welfare, are both positively reflected in wage differentials.

The employment market characteristics of states perform largely as expected, with one exception. EMPGRO (the growth in employment in the potential migrants industry in the home versus destination states) leads to increased wage differentials in the Northeast and Southeast comparisons (as expected), but is not important when looking at the West potential migrant group. However, in the Midwest region, EMPGRO is negatively correlated with wage differentials. One explanation is that the growth in the industry has increased labor supply enough to dampen the price of such labor relative to that in other states. The combination of the labor market variables shows that in general, growth in employment is accompanied by higher wages.

VI. Conclusions

The motivation of this paper was to identify the effect of state personal income taxes on the state-to-state migration decisions. The basic investment model of migration can be used to investigate whether taxes play a role in the migration decision, but if taxes are capitalized into wage differentials, tax variables may not be significant in migration decisions. Previous studies fail to find consistent significant impacts of state income taxes on migration. Using individual level data, we imputed expected wages to individuals based on their origin and potential destination states. Using this information, we calculated effective state income tax rates using a simulation model of state income tax structures. We find that in a number of cases, income tax differentials are reflected in wages. This capitalization would explain why state income tax

variables themselves do not explain migration in previous studies. The capitalization may also reduce the significance of the resulting wage differentials on a state-to-state level.

We do not find support for the capitalization of other fiscal variables which may be due to the fact that sales and property taxes are more difficult to capitalize as they are not as specific to each individual as state income taxes are (due to graduated rate structures and the types of exemptions and deductions allowed by states). This line of inquiry could be extended to incorporate both the state income tax and local tax variables using a data set which reports city-to-city (or metro area) migration. A more detailed calculation of applicable tax variables and use of the capitalization hypothesis would allow us to analyze the effects of state *and* local variables on the migration decision more definitively.

References

- Boehm, Thomas P., Henry W. Herzog, Jr., and Alan M. Schlottmann. 1991. "Intra-Urban Mobility, Migration, and Tenure Choice," *The Review of Economics and Statistics*, 73, 59-68.

- Borjas, George J., Stephen G. Bronars, and Stephen J. Trejo. 1992. "Self-Selection and Internal Migration in the United States," *Journal of Urban Economics*, 32, 159-185.

- Cebula, Richard J. 1979. "A Survey of the Literature on the Migration-Impact of State and Local Government Policies," *Public Finance/Finances Publiques*, 34, 69-84.

- Clark, David E. and William J. Hunter. 1992. "The Impact of Economic Opportunity, Amenities and Fiscal Factors on Age-Specific Migration Rates," *Journal of Regional Science*, 32, 349-365.

- Fox, William F., Henry W. Herzog, Jr., and Alan M. Schlottmann. 1989. "Metropolitan Fiscal Structure and Migration," *Journal of Regional Science*, 29, 523-536.

- Graves, Philip E. 1980. "Migration and Climate," *Journal of Regional Science*, 20, 227-237.

- Graves, Philip E. and Peter L. Linneman. 1979. "Household Migration: Theoretical and Empirical Results," *Journal of Urban Economics*, 6, 383-404.

- Greenwood, Michael J. 1985. "Human Migration: Theory, Models, and Empirical Studies," *Journal of Regional Science*, 25, 521-544.

- Greenwood, Michael J. and Gary L. Hunt. 1989. "Job versus Amenities in the Analysis of Metropolitan Migration," *Journal of Urban Economics*, 25, 1-16.

- Henderson, J. Vernon. 1982. "Evaluating Consumer Amenities and Interregional Welfare Differences," *Journal of Urban Economics*, 11, 32-59.

- Hicks, John R. 1932. *The Theory of Wages*. London: Macmillan Press.

- Knapp, Thomas A. and Philip E. Graves. 1989. "On the Role of Amenities in Models of Migration and Regional Development," *Journal of Regional Science*, 29, 71-87.

- Mueller, Charles F. 1982. *The Economics of Labor Migration a Behavioral Analysis* (New York: Academic Press).

- Price, Richard and Edwin Mills. 1985. "Race and Residence in Earnings Determination," *Journal of Urban Economics*, 17, 1-18.

- Schachter, Joseph and Paul G. Althaus. 1989. "An Equilibrium Model of Gross Migration," *Journal of Regional Science*, 29, 143-160.

- Sjaastad, Larry A. 1962. "The Costs and Returns of Human Migration," *Journal of Political Economy*, 70, 80-93.

- Todaro, M. 1969. "A Model of Labor Migration and Urban Development in Less Developed Countries," *American Economic Review*, 59, 138-148.

- Wallace, Sally. 1993. "The Effects of State Personal Income Tax Differentials on Wages," *Regional Science and Urban Economics*, 23, 611-628.

- Wasylenko, Michael, and Therese McGuire. 1985. "Jobs and Taxes: The Effect of Business Climate on States' Employment Growth Rates," *National Tax Journal*, 38, 97-511.

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