



MOVIN' ON OUT: MISSOURI'S MIGRATION PATTERNS SINCE 2004

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ABSTRACT

Missouri's economy has grown at a slower pace over the past decade than every state in the nation, with the exception of Michigan. Job growth also has lagged. In this essay, we look at several data sources to see whether this unimpressive economic track record is reflected in another indicator of economic success: migration. It seems reasonable to argue that in relatively bad economic conditions individuals will, if able, move to areas offering more jobs, higher incomes, or even

more favorable tax climates. Relying on data sources as varied as moving companies to the Census Bureau and the IRS, our evidence reveals that, especially since 2007, more of Missouri's residents have relocated out of the state than others have moved in. If a greater proportion of those individuals leaving the state are in higher income brackets or are more educated, this will have important and unpleasant consequences for Missouri's future economic growth.

INTRODUCTION

The general conclusion from a series of reports published by the Show-Me Institute is that the Missouri economy has fallen far behind its neighbors and the nation as a whole during the past decade.1 Whether in terms of the growth of output or in jobs, the Missouri economy has suffered relative to most other states in the country. In this essay, we are curious about Missouri's migration pattern—the number of people moving out of and into Missouri—over this time period. Has the state's dismal economic track record induced residents to move elsewhere and, on the flip side, kept others from moving in?

We will be the first to recognize that there are a number of elements other than the state's overall economic climate—weather, family, preferences over urban vs. rural living, etc.—that enter into personal decisions on whether to relocate. But our bias is that poor economic growth and a lack of jobs must, all else the same, influence many individuals' decision of where to live. Taxation also could be part of that package of economic factors influencing location decisions. Indeed, part of our analysis is to explore the possibility that differences between Missouri's and other states' personal income tax rates and overall tax burden helps explain observed migration patterns.

In this essay, we will use several sources of data to arrive at an overall picture of migration into and out of Missouri. From information provided by moving companies to the information collected by the Census Bureau and the Internal

Revenue Service, the takeaway is that during the period when Missouri experienced relatively poor economic performance, it also experienced a net outflow of people—and their income—to other states.

MOVING COMPANY DATA

To provide an initial overview of migration patterns, we use the statistics compiled by two of the nation's largest moving companies, United Van Lines and Atlas Van Lines. Each company tracks the number of moves into and out of the states in which they operate. Note that these data do not indicate the number of individuals who are moving, merely that a "household" is relocating from one state to another.² This drawback is offset by the fact that the data are available on a timelier basis than the other data we will use. For our purpose, we will use each company's data to calculate the percent of total outbound moves from Missouri. A figure over 50 percent thus indicates that there are more moves out of than into Missouri. This makes it a useful "finger in the wind" to gauge trends in moving patterns over time.

Figure 1 shows Missouri's net moving data from United Van Lines and Atlas Van Lines for the period 2004-13.³ The common result from both companies' data is that over the past decade more households have left Missouri than have moved in. The net outbound percentage exceeds 50 percent for all years using the Atlas Van Lines data, and for all but two years (2008, 2009) using the United Van Lines data.⁴

The trends in Figure 1 reveal movement patterns during the

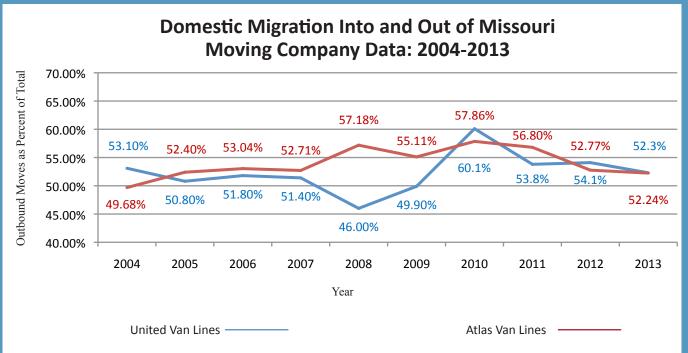
¹ See Hafer and Rathbone, "Missouri's Economic Record," and the studies cited therein.

²We use the term "household" advisedly. Because the data do not detail whether the move is an individual or a family, the term "household" is used as a generic catchall for anyone who is relocated by the two companies.

³ Sullivan, "Migration Study Historical Data." View the correspondence between Show-Me Institute and United Van Lines online at https://www.documentcloud.org/documents/1277145-hey.html. Atlas Van Lines, "Interstate and Cross-Border 2013 Migration Patterns."

⁴ Arguably, the evidence from 2004 suggests that there was a matching offset of moves to and from the state because both ratios are essentially 50 percent.

Figure 1



The figures shown are the percent of total moves that are outbound from Missouri to other states. Figures greater than 50 percent indicate more households moving out of the state than moving in.

Sources: United Van Lines, Atlas Van Lines

economic downturn that began in late 2007 and officially ended in mid-2009.5 During the so-called Great Recession the moving company data indicate a notable increase in the relative number of outbound moves. In 2008, for instance, the Atlas Van Lines data show that over 57 percent of all moves were locating Missouri households to another state. And while the United Van Lines figures indicate that Missouri actually experienced a net inbound of moves in 2008, this was quickly reversed in subsequent years. In fact, in 2010 the United figures reached a high of 60 percent. This means that 60 percent of all moves conducted by United Van Lines in Missouri were to move households out of the

state. While this outbound bias has moderated in recent years, the data still show that more households continue to leave Missouri than are moving in.

The bottom line from Figure 1? Moving company data reveal that Missouri has seen more households moving out than moving in.

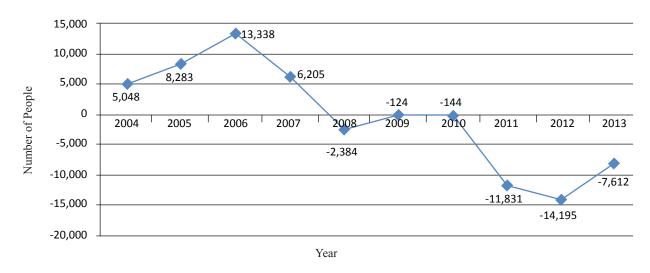
CENSUS DATA

Another source of migration data is the United States Census Bureau. The census data add a layer of precision not provided by the migration data from the moving companies. Because the moving company data capture "household" moves and not

⁵These are the official dates of the so-called Great Recession. Some would argue that though the national recession ended in 2009 its negative effects have lasted much longer.

Figure 2

Domestic Migration Into and Out of Missouri Census Data: 2004-2013



This figure shows the number of people moving into Missouri and those moving out of the state. Positive values represent net inflows; negative numbers represent net outflows.

Source: U.S. Census, various years

individuals, it may understate the true number of individuals moving into and out of Missouri. Though estimated and therefore subject to some error, the census data offer another view into the story of how Missouri's population has changed over the past decade.

We use the Census Bureau's records on Net Domestic Migration for Missouri. Figure 2 plots Missouri's data for the period 2004-13.6 The census figures show that net domestic migration in Missouri was negative for the entire decade, more than 3,000 people left the state than entered it. As the decade wore on more and more people left the state and fewer entered. It is evident in Figure 2 that Missouri enjoyed a positive net migration from 2004 to 2007. The peak occurred in 2006 when

over 13,000 more people moved into the state than out. This peak was shortlived, however.

The slowing in economic activity that began in 2007 and mushroomed into the Great Recession of 2008-09 is associated with a negative net migration of Missouri residents. During the post-2006 period, the Missouri economy fared poorly during the downturn. Not only did economic activity, as measured by the growth in output (real GDP), decline more than in most other states, but Missouri also experienced a much slower recovery since 2009. During this period of declining relative prosperity, the census data in Figure 2 indicate that more people began moving out of Missouri than were moving in. Perhaps

⁶ U.S. Census Bureau Population Estimates, "Historical Data: 2000s," "Historical Data: 2010s," "State Totals: Vintage 2013."

most interesting is the fact that while the "official" end of the recession nationwide is June 2009, the peak decline in Missouri's net migration occurs in 2011 and 2012. Of interest is what the trend of migration will be in coming years as Missouri's economy continues to recover in a relatively less robust manner than surrounding states and the nation as a whole.

Our examination of the census data indicates that Missouri has witnessed a net outflow of people since 2008.

IRS DATA

Another source of information that can be used to illustrate migration patterns is available from the Statistics of Income Division (SOI) of the Internal Revenue Service. The SOI data are especially informative because they provide a check on the moving company data and the census reports. The SOI data also provide a glimpse into where income is moving to and from, and they compare the average income of individuals who are leaving Missouri with those who are entering the state.⁷

The SOI data help us flesh out some details about Missouri's net migration. We use the SOI data from two filing years: 2004-05 and 2010-11, the most recent year for which data are available. These two years allow us to compare migration patterns in both "good" economic times, the 2004-05 year, and "bad" times, captured by the 2010-11 data. Recall that the 2010-11 year comes on the heels of the Great Recession, which ended (officially, at least) in mid-2009.

We use the SOI data for these two years to rank states on the basis of whether they are "net recipients" or "net providers" of residents to Missouri. Using this data we construct the "top 10 destination" states to which Missouri residents have, on net, migrated. We also construct a list of the "top 10 source" states, or states from which Missouri residents have, on net, emigrated from. Such rankings are useful to see if there are any common characteristics that may explain these offsetting migration patterns. In our comparison we use one simple basis: differences between personal tax rates and tax burdens relative to Missouri.

Even with the wealth of information provided by the SOI data, we must recognize that it has, like any other data set, limitations.8 First, the SOI data do not include non-filers. Any individual who is not required to file a federal income tax return is not included in the SOI data. This means that it excludes the poor and some elderly individuals/households. Second, because the SOI data are based on filings that occur before September, they will miss those who receive filing extensions. Because these filers (a very small percentage of the total) are often those with complicated returns, and who tend to be the very wealthy, the SOI migration data might under-represent this group. Finally, the SOI data are based on the primary taxpayer's Social Security number as the identifier. This means that changes in filing status, such as divorce, could affect the coverage of the data. This would occur only once as the newly divorced individual's Social Security number would be used for future returns. Even with these caveats, it is

⁷ See Lucci, "IRS Data Shows More Taxpayers Fleeing Illinois." Lucci analyzed the 2010 SOI data for Illinois. He found that in 2010 the average income for a taxpayer moving into Illinois was about \$49,000 but that the average income for someone leaving Illinois was

For details about the SOI data, see Gross, "U.S. Population Migration Data."

Table 1
Domestic Migration Into and Out of Missouri
IRS Data: Total Exemptions
Tax Year 2004-05

	(1)	(2)	(1) - (2)
	Inflow	Outflow	Net Inflow
Top 10 Destinations			
Florida	5,031	7,157	-2,126
Arizona	2,608	3,017	-409
Virginia	1,998	2,387	-389
North Carolina	2,227	2,528	-301
Nebraska	2,125	2,370	-245
Tennessee	2,681	2,910	-229
Indiana	2,546	2,708	-162
Alabama	1,173	1,308	-135
Arkansas	5,477	5,601	-124
Oregon	718	798	-80
T 10 C			
Top 10 Sources	0.004	5 262	2 722
California Illinois	9,084	5,362	3,722
	14,409	,	2,335
Kansas Iowa	17,326	15,954	1,372 603
	3,803	3,200	
Louisiana	1,895	1,324	571
Wisconsin	1,980	1,437	543
Oklahoma	4,269	3,754	515
Michigan	2,449	1,998	451
Minnesota	1,756	1,358	398
Ohio	2,363	2,025	338

This table uses IRS data on total household exemptions to measure migration into and out of Missouri. Note that each exemption represents an individual. The top panel ranks the states to which Missourians moved (on net) in the tax year 2004-05. The bottom panel ranks the states from which individuals moved to Missouri (on net) in the tax year 2004-05.

Source: IRS

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our belief that the SOI data, which captures 95-98 percent of total filings, includes the vast majority of individuals leaving a state or moving in

Table 1 provides a list of states in terms of net inflow of tax exemptions (i.e., tax filers and dependents moving into Missouri minus tax filers and dependents moving out of Missouri) for 2004-05.9 Instead of simply listing all 50 states, we show the top 10 "destination" states—those states to which Missouri has, on net, lost population—and the top 10 "source" states—those states from which Missouri gained residents.

Florida stands out as the top net destination state for Missouri residents. This choice undoubtedly reflects several factors, climate being one. It is worth noting that Florida is a state that has no personal income tax, an extra draw for those seeking to live in a warmer climate. According to the IRS data, in 2004-05 California was the top net source state for people moving into Missouri.

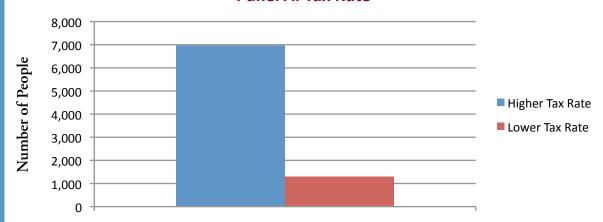
Is there a common denominator to the destination and source states in Table 1? Of the top 10 destination states, two do not have an income tax (Florida and Tennessee) and two are border states (Nebraska and Tennessee). Of the top source states, four are border states, with Kansas, Illinois, and Iowa being near the top in the ranking.

While such a top 10 listing is interesting, it obviously leaves out information from the other states. To gauge net migration in 2004-05, we used the complete data set to create charts illustrating patterns in the data. The problem is how to sort the states across the many factors that could influence one's moving decision. In keeping with the insight of Charles Tiebout, who argued that a city's or

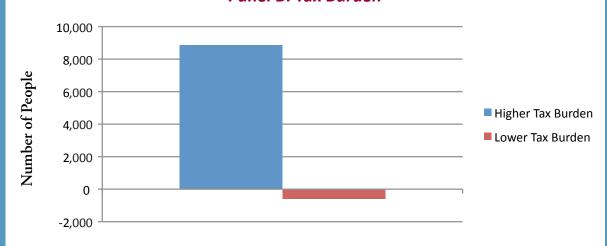
⁹ Internal Revenue Statistics of Income Division for Tax Year 2010– 2011, http://www.irs.gov/uac/SOI-Tax-Stats-Migration-Data-Missouri.

Domestic Migration Into and Out of Missouri IRS Data: Total Exemptions Tax Year 2004-05

Panel A: Tax Rate



Panel B: Tax Burden



These figures show the net number of people (inflow minus outflow), based on IRS total exemptions, that moved into Missouri during the tax year 2004-05. Sample is all 50 states. Panel A compares net migration to/from states with higher and lower marginal income tax rates than Missouri. Panel B compares net migration to/from states with higher and lower overall tax burdens than Missouri. Tax rate and tax burden comparisons use Tax Foundation rankings. Positive values indicate net migration into Missouri. Negative values indicate net migration out of Missouri.

state's tax environment and the services its government provides affects people's decision on where to locate—they reveal their preferences by "voting with their feet"—we pick state taxes as our metric influencing location decisions. We do this in two ways: One is whether a state has a personal income tax rate that is higher or lower than Missouri. The other is to use states' tax burdens (defined below) as our measure of comparison. Each is used to assess Missouri's migration patterns.

Figure 3a shows the net migration for Missouri based on whether the other state has a personal income tax rate that is higher or lower than Missouri. This is based on the idea that, all else the same, individuals may seek to live in places that levy a smaller tax on their personal income. What Figure 3a shows is that in 2004-05 there not only was a net migration into Missouri (this is consistent with the census data) but that relatively more of these immigrants came from states with a higher personal income tax rate than Missouri. This suggests that one reason people moved to Missouri was because they could enjoy a lower tax rate on their personal income.

To see if this outcome is robust, Figure 3b carries out the same experiment but this time using *tax burden* to rank states. We use the Tax Foundation's definition of tax burden—basically, total taxes paid by individuals at the state and local level relative to total state income. Tax burden is, therefore, a broader measure of taxes paid than just those paid on personal income. ¹¹

What is the pattern of net migration based on using this comparison of taxes

across states? The evidence in Figure 3b is that in 2004-05 there is still an in-migration from states in which individuals face a higher tax burden relative to Missouri. Unlike movements based on income tax rates (Figure 3a), there is a small net migration from Missouri to states with lower tax burdens.

Have these migration patterns changed over the past decade? The moving company and census data used earlier indicate that Missouri has suffered a net loss of population in recent years. Table 2 presents the net migration data based on IRS total exemptions for 2010-11. Again for the sake of convenience we list the top 10 destination states to which Missouri residents have gone and the top 10 source states from which individuals have moved.

In terms of destination states for the tax year 2010-11, four states also appeared in the 2004-05 ranking. These are Florida, Arkansas, North Carolina, and Tennessee, two of which are border states. Notably, in the 2010-11 list more of the states to which Missouri residents moved are states in which there is no personal income tax (Texas, Florida, Washington, and Tennessee). When considering the states from which Missouri residents have come, we again find that half of the states also were net sources of population in 2004-05, two of which are the border states Kansas and Illinois.

Figures 4a and 4b repeat the earlier analysis using taxes as our way to rank states. Figure 4a is based on personal income tax rates relative to Missouri. It shows that not only was there a

¹⁰ For more, see Tiebout, "A Pure Theory of Local Expenditures," 416–24. In testing this hypothesis, Cebula and Alexander conclude that "state income tax burdens [are shown] to consistently act as a deterrent to net in-migration." See Cebula and Alexander, "Determinants of Net Interstate Migration," 116–23.

To rissues related to the measurement of tax burden, see Haslag and Albers, "What Makes a GoodTax Structure?"

net migration out of Missouri, but individuals also tended to move to states with lower tax rates compared with Missouri. Of the total net migration, almost two-thirds moved to states with lower income tax rates than Missouri as their new residence. A similar story unfolds in Figure 4b. There we see that individuals who moved out of the state opted for a destination state that had a relatively lower total tax burden compared with Missouri. In addition to the varied factors that go into deciding whether and to where one moves, the evidence in Figures 3 and 4 suggest that taxes may play a role at the margin.

Thus far we have focused on the number of people moving in and out of the state. As mentioned earlier, a useful aspect of the IRS data is that it also includes the state-to-state flow of adjusted gross income (AGI), again based on individual tax forms filed. We use the IRS data to measure the net migration of income in 2004-05 and in 2010-11. Using the AGI data, we repeat the above analysis for 2004-05 and 2010-11.

Table 3 reports migration by AGI for 2004-05, again listing only the top 10 destination states and the top 10 source states. In 2004-05, the average taxpayer who left the state earned almost \$44,000 in income. The average taxpayer who moved into Missouri had an average income that was about \$41,000. In other words, those who moved out of the state tended to be, on average, individuals with slightly higher incomes.¹²

In Table 3 we see that of the top 10 destination states four are states that

Table 2
Migration Using IRS Data: Total Exemptions
2010-11

2010-11	(1)	(2)	(1) - (2)
	Inflow	Outflow	Net Inflow
Top 10 Destinations			
Texas	8,003	10,814	-2,811
Florida	4,662	6,948	-2,286
Arkansas	4,894	6,646	-1,752
Colorado	2,565	3,386	-821
Kentucky	1,724	2,284	-560
Oklahoma	3,409	3,869	-460
North Carolina	2,291	2,729	-438
Washington	1,762	2,166	-404
Georgia	2,680	3,066	-386
Tennessee	2,606	2,991	-385
Top 10 Sources			
Illinois	12,963	10,655	2,308
Wisconsin	1,757	1,317	440
Utah	979	793	186
Michigan	2,133	1,985	148
Nevada	1,087	954	133
Ohio	2,082	1,972	110
Kansas	15,644	15,544	100
Idaho	490	406	84

This table uses IRS data on total household exemptions to measure migration into and out of Missouri. Note that each exemption represents an individual. The top panel ranks the states to which Missourians moved (on net) in the tax year 2010-11. The bottom panel ranks the states from which individuals moved to Missouri (on net) in the tax year 2010-11.

678

1,419

603

1,359

75

60

Source: IRS

Alaska

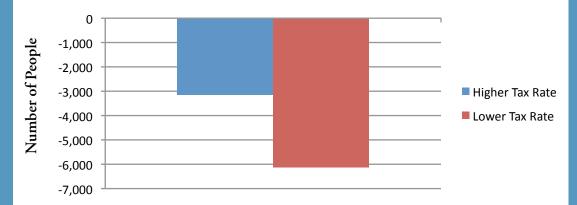
Pennsylvania

levy no personal income tax; Florida and Texas again are two of the top three destinations. In terms of source states, none are zero-income tax states. Of the states from which Missouri, on net, gained residents, California and Illinois once again are two of the top sources.

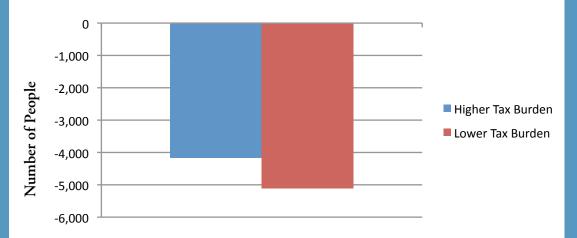
These figures are found by dividing the total inflow and outflow of AGI by the number of returns filed. For example, in 2004–05 the inflow in terms of AGI was \$2,463,130 and the number of returns was 60,103. Dividing the dollar amount by the number of returns yields the average return, or \$40,982.

Domestic Migration Into and Out of Missouri IRS Data: Total Exemptions Tax Year 2010-11

Panel A: Tax Rate



Panel B: Tax Burden



These figures show the net number of people (inflow minus outflow), based on IRS total exemptions, that moved into Missouri during the tax year 2010-11. Sample is all 50 states. Panel A compares net migration to/from states with higher and lower marginal income tax rates than Missouri. Panel B compares net migration to/from states with higher and lower overall tax burdens than Missouri. Tax rate and tax burden comparisons use Tax Foundation rankings. Positive values indicate net migration into Missouri. Negative values indicate net migration out of Missouri.

(1) - (2)

To focus on the impact of taxes on moving decisions, Figure 5a shows the net domestic migration by adjusted gross income where the states are sorted by personal income tax rates. Obviously, tax rates are not the sole criterion in making a decision to move. What is interesting is the fact that the dollar amount of migration out of the state and to states with lower tax rates on personal income was over \$150 million. In terms of AGI, the data in Figure 5a indicates that the state lost, on net, more than \$77 million in income and most of that income was lost to states with lower tax rates than Missouri.

Figure 5b analyzes the migration pattern using AGI, except this time we sort states by their tax burden relative to Missouri. Once again we see a similar pattern: While Missouri lost some people to higher tax-burden states, the Show-Me State saw a net inflow of income from states with a higher tax burden. Most migration out of Missouri went to states with lower tax burdens. This outflow of income, approximately \$175 million was greater than the amount of income Missouri received from higher taxburden states. Missouri witnessed a net outflow of income. Figures 3 and 4 show that for 2004-05 more people moved into Missouri than moved out. However, Figures 4 and 5 show that more higher-income earners left the state than moved in. Much of this net income left for no income-tax states, while Missouri saw a net inflow of adjusted gross income from higher income-tax states and its bordering states.

Table 3
Domestic Migration In and Out of Missouri
IRS Data: Adjusted Gross Income (AGI)
Tax Year 2004-05

(1)

(2)

	(1)	(2)	(1) (2)
	Inflow	Outflow	Net Inflow
Top 10 Destinations			
Florida	\$116,623	\$263,292	\$ -146,669
Nebraska	41,315	67,809	-26,494
Texas	170,188	192,991	-22,803
Arizona	51,519	68,850	-17,331
Colorado	65,981	81,352	-15,371
Virginia	46,891	56,859	-9,968
Washington	31,091	39,556	-8,465
North Carolina	46,352	54,272	-7,920
Arkansas	78,864	86,035	-7,171
Nevada	23,222	30,068	-6,846
Top 10 Sources			
California	\$185,255	\$135,164	\$50,091
Illinois	323,333	278,701	44,632
Kansas	374,813	344,305	30,508
Iowa	78,836	58,674	20,162
Ohio	60,958	48,093	12,865
Oklahoma	69,337	57,228	12,109
Louisiana	34,413	22,939	11,474
Pennsylvania	42,596	32,602	9,994
Wisconsin	42,401	34,087	8,314
Michigan	54,922	47,166	7,756
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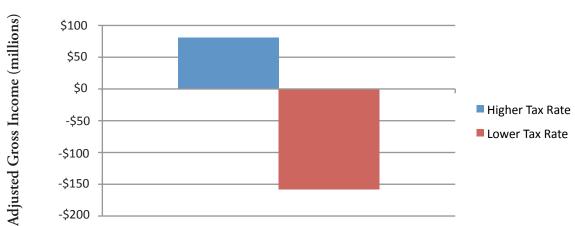
This table uses IRS data on AGI to measure migration, in dollar terms, into and out of Missouri. The top panel reports the 10 states to which AGI flowed (on net) the most from Missouri in the tax year 2004-05. The bottom panel ranks the states from which AGI flowed (on net) to Missouri (on net) in the tax year 2004-05. AGI is measured in thousands of dollars

Source: IRS

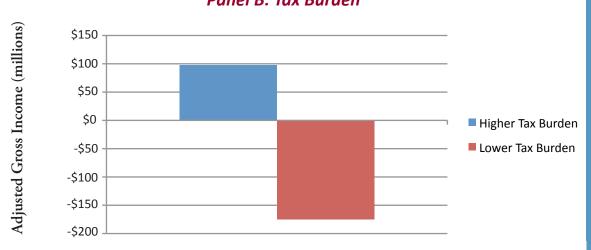
We now repeat the examination of the AGI data for 2010-11. The average income of those leaving Missouri was slightly over \$45,000, and the average income of those moving into Missouri was more than \$42,000. The data in Table 4 show where those individuals

Domestic Migration Into and Out of Missouri IRS Data: Adjusted Gross Income (AGI) Tax Year 2004-05





Panel B: Tax Burden



These figures show the net amount of AGI (inflow minus outflow), based on IRS filings, that moved into Missouri during the tax year 2004-05. Sample is all 50 states. Panel A compares net migration of AGI to/from states with higher and lower marginal income tax rates than Missouri. Panel B compares net migration of AGI to/from states with higher and lower overall tax burdens than Missouri. Tax rate and tax burden comparisons use Tax Foundation rankings. Positive values indicate net migration of AGI into Missouri. Negative values indicate net migration of AGI out of Missouri. AGI is measured in millions of dollars.

went to and came from. Florida is not only the top destination for Missouri residents, but it also is tops for higherincome individuals. It is interesting to note that Texas, which ranked as the most popular destination for the total number (net) of residents migrating out of Missouri, is ranked as the second most popular destination for income leaving Missouri. Both Florida and Texas also rank high as destination states in 2004-05. Two other zero income-tax states, Washington and Tennessee, also found their way into the top 10 destination states in 2010-11. The only zero income-tax state to make the list of source states is Alaska. Out of the top 10 destination states, four are border states: Kansas, Kentucky, Arkansas, and Tennessee (which also happens to have an income tax rate of zero for wages). In 2010-11 the top two states as sources of net income movers were from Illinois and Iowa.

It is interesting to note that between 2004-05 and 2010-11 Nebraska went from a destination to a source state. Moreover, Iowa and Illinois continued to be net source states to Missouri. In fact, the majority of the net inflow into Missouri is because of Illinois filers switching states. This could reflect the fact that in 2011 Illinois passed legislation increasing the personal income tax rate to 5 percent from 3 percent.¹³

To get a handle on net migration by adjusted gross income for 2010-11, Figures 6a and 6b illustrate the net migration by AGI for states sorted by tax rates and tax burden, respectively. In Figure 6a we see that income left Missouri bound for states that had

Table 4
Migration by Adjusted Gross Income (AGI)
2010-11

	(1) Inflow	(2) Outflow	(1) – (2) Net Inflow
Top 10 Destinations	111110 **	O dello W	1 (or IIII)
Florida	\$104,657	\$208,867	\$-104,210
Texas	174,747	250,560	-75,813
Kansas	346,012	411,013	-65,001
Arizona	44,421	69,446	-25,025
Colorado	55,944	78,405	-22,461
Kentucky	32,406	52,979	-20,573
Arkansas	76,157	95,542	-19,385
Washington	33,808	52,544	-18,736
Tennessee	51,771	65,453	-13,682
North Carolina	48,570	62,110	-13,540
Top 10 Sources			
Illinois	\$ 305,438	\$251,158	\$54,280
Iowa	72,667	60,701	11,966
Wisconsin	44,982	33,429	11,553
Nebraska	42,709	36,566	6,143
Ohio	56,664	53,058	3,606
Minnesota	43,680	40,098	3,582
Alaska	13,398	10,335	3,063
Michigan	48,300	45,273	3,027
New Jersey	26,224	24,509	1,715
Rhode Island	3,536	2,013	1,523

This table uses IRS data on AGI to measure migration, in dollar terms, into and out of Missouri. The top panel reports the 10 states to which AGI flowed (on net) the most from Missouri in the tax year 2010-11. The bottom panel ranks the states from which AGI flowed (on net) to Missouri (on net) in the tax year 2010-11. AGI is measured in thousands of dollars.

Source: IRS

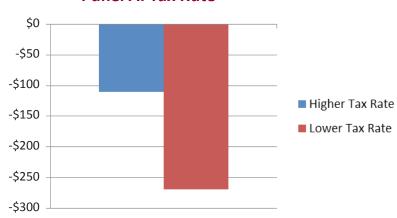
higher and lower personal income tax rates relative to Missouri. In total, Missouri lost over \$350 million in AGI in 2010-11. If we use tax burden to sort states, a similar picture emerges. Figure 6b shows that regardless of tax burden Missouri on net lost income to other states. The evidence in Figures

¹³ Lucci "IRS Data Shows More People Fleeing Illinois," shows that even though Illinois has lost population over the past decade the hemorrhaging increased significantly following the passage of the higher tax rate.

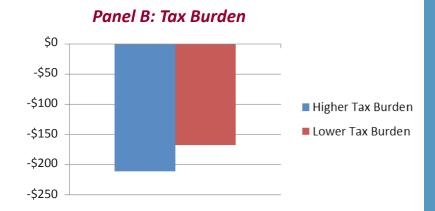
Domestic Migration Into and Out of Missouri IRS Data: Adjusted Gross Income (AGI) Tax Year 2010-11

Panel A: Tax Rate

Adjusted Gross Income (millions)



Adjusted Gross Income (millions)



These figures show the net amount of AGI (inflow minus outflow), based on IRS filings, that moved into Missouri during the tax year 2010-11. Sample is all 50 states. Panel A compares net migration of AGI to/from states with higher and lower marginal income tax rates than Missouri. Panel B compares net migration of AGI to/from states with higher and lower overall tax burdens than Missouri. Tax rate and tax burden comparisons use Tax Foundation rankings. Positive values indicate net migration of AGI into Missouri. Negative values indicate net migration of AGI out of Missouri. AGI is measured in millions of dollars.

6a and 6b suggest that in 2010-11 the tax climate of other states was not paramount in making the decision to move.

Overall, the evidence shows that, as in 2004-05, Missouri experienced a net outflow of adjusted gross income for the tax year 2010-11. What is different is the fact that the net outflow increased significantly so that by 2011 it surpassed \$350 million. The biggest change in 2010-11 compared to 2004-05 is the fact that in the more recent period the other states' tax structure did not lead to any difference in choice of state. That is, Missouri residents, on net, left for states that had an even higher personal income tax rate and tax burden.

CONCLUSION

In this essay, we looked at migration data over the past decade to see how Missouri's residents have revealed their preferences of living here or elsewhere. It is well documented that during this century Missouri has lagged behind its neighbors and the nation in terms of economic growth—the amount of goods and services produced—and in job growth. Have, on net, Missouri residents "voted with their feet" and sought other, more attractive economic environments?

The upshot is that over the past decade Missouri has seen an exodus of its population. This trend is even more notable during the years since the onset of the Great Recession. Economic theory suggests that—all other influences held constant—differences in taxes, whether it is tax rates or tax burden, will help predict differences in

economic growth and migration. Our evidence indicates that recently this tax effect was swamped by other negative economic factors. Missouri's economic condition was so bad relative to other states that individuals, on net, even migrated to states with less friendly tax structures.

The fact that the individuals who left the state are those who, on net, are making higher incomes could raise problems in the future. If those with higher incomes are leaving the state in relatively greater numbers, this could make it difficult for state and local governments to fund basic services without resorting to higher taxes. As our rudimentary analysis suggests, such a policy choice could induce even more individuals (and their incomes) to migrate.

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