

The Impacts of Non-local Buyers on Farmland Market in Alabama



By Yingyun Lin, Mykel Taylor, and Sunjae Won

Yingyun Lin is a PhD student in the Department of Agricultural Economics and Rural Sociology, Auburn University (corresponding author; yz10315@auburn.edu); Mykel Taylor is a Professor, Alfa Endowed Chair, and Department Head in the Department of Agricultural Economics and Rural Sociology, Auburn University; and Sunjae Won is an Assistant Professor in the Department of Agricultural Economics and Rural Sociology, Auburn University.

Abstract

Previous studies show that non-local buyers typically pay a price premium for farmland but most adopt a simple dummy variable to measure buyers' non-locality, which neglects the heterogeneity among non-local buyers. Utilizing a parcel-level farmland transaction dataset, we construct a distance-based variable to measure buyers' non-locality, using multiple regression to investigate their impacts on farmland market. Our results indicate that an additional 1% buyer-to-parcel distance can lead to farmland price increase by 4.3%, suggesting that buyers located farther away typically pay more for land. It is probably because they face greater

asymmetric information and possess more limited local market knowledge.

INTRODUCTION

As the most important asset of the farm family, farmland plays a critical role in food production and supply (Wang et al., 2024). Farmland value also has a strong influence on the agricultural economy (Thomas et al., 2024), with fluctuations in farmland market values closely related to the interest of agricultural producers, lenders, and other investors (Taylor et al., 2020). While a large body of literature reveals that farmland values are mainly determined by their attributes, such as productivity, transportation conditions, and urbanization pressures (Kueth et al., 2011; Sheng et al., 2018; Huang et al., 2006), increasing attention has been directed to the role of non-local investors in farmland markets.

Some previous literature suggests that non-local or non-farmer investors must pay higher prices for farmland because of a higher degree of asymmetric information. Compared with local buyers, they are typically less familiar with local market conditions, the land's quality, and potential profitability. For example, Seifert et al. (2021) investigated the price dispersion of farmland in eastern Germany, indicating that tenant farmers pay less for farmland because of a lower degree of asymmetric information. In contrast, professional and public sellers achieve higher prices because of lower search and information costs. Similarly, Kahle et al. (2019) found that tenant farmers can achieve lower transaction prices because of their informational strength. Taylor et al. (2023) also drew similar conclusions when investigating farmland price differences between foreign and domestic buyers in 11 Midwestern states. They found that foreign buyers pay a 13.7% premium for agricultural land over domestic buyers.

However, asymmetric information is not always the only explanation regarding the price difference among different types of farmland buyers, for example, the bid-rent theory is another common mechanism—

Vyn and Shang (2021) found that non-farmer buyers typically pay a price premium for farmland, but such a price discrepancy only occurs in near-urban areas. They suggested that non-farmer buyers put more value on farmland's development potential and are thus willing to pay higher prices, while farmers only focus on agricultural-related characteristics, leading to a lower willingness to pay "extra."

That said, some studies do not support the argument that non-local buyers pay more than locals, for example, Shultz (2007) reached different conclusions, suggesting that non-local buyers do not pay a price premium for hunting land in areas dominated by waterfowl hunting, but they do pay a significant premium for farmland in regions dominated by pheasant hunting. The apparent price premium exists solely because of outlier observations, indicating that the impacts of non-local buyers on farmland prices are heterogeneous across regions.

Some studies indicate that the influx of non-local investors will ultimately lead to local farmland prices increasing, e.g., Curtiss et al. (2021) used a stochastic metafrontier approach to evaluate the impacts of investors on the farmland market in the Czech Republic, indicated that the entry of non-agricultural investors raised prices, forcing local agricultural buyers to adjust their bidding strategies before the market ultimately converged toward the prices set by investors.

Most of the existing research utilizes a binary variable to measure non-local buyer effects that fail to capture the diversity of the distance from which non-local buyers are located vs. parcels. For example, it is possible that out-of-state buyers bear a higher degree of asymmetric information than buyers from nearby counties. Furthermore, prior studies treat farmland as a homogeneous asset and neglect the fact that its characteristics and price determinants are very different across different land use patterns, e.g., the investment cost and profitability of pastureland is typically lower than cropland.

To address this knowledge gap, we therefore construct a distance-based variable, measured by the actual distance between the property and buyers' mailing addresses, to evaluate the impacts of non-local buyers on farmland prices. We also separate our sample into cropland and pastureland to observe the potential heterogeneity across land classifications.

The goal of this study is to investigate the following research questions: Do non-local buyers pay higher prices for farmland in Alabama? And, if so, do such

effects differ between cropland and pastureland? To achieve our objectives, we use a unique parcel-level transaction dataset provided by CoreLogic, incorporated with county-level population variables provided by the Bureau of Economic Analysis (BEA). Using a hedonic price method, we employ multiple regression models to assess the presence and magnitude of a non-local price premium.

DATA AND VARIABLES

Our primary source of data comes from CoreLogic, a real estate data provider that is widely used in agricultural and urban economics literature (e.g., Won et al., 2025). The dataset contains parcel-level farmland transaction records across 33 counties in Alabama during the period of 2001-2023. Even though a great portion of land in Alabama is categorized as timberland, we limit the analysis to cropland and pastureland because the price determinants of timberland are highly different from other types of agricultural land. Moreover, timberland parcels with hunting and recreational potential are often purchased by non-local, especially urban, investors, leading to higher transaction prices. After excluding records with obvious errors and missing values, we retain 15,335 observations, including 9,441 cropland transactions and 5,894 pastureland transactions.

Our dependent variable is the natural logarithm of the per-acre transaction price. As for our core explanatory variables, we first construct distance-based variables to measure farmland buyers' locality. Because CoreLogic provides the information for buyers' mailing addresses, where buyers include both individual and corporate purchasers, we use ArcGIS to convert addresses to longitudes and latitudes, then calculate the great-circle distance between buyers' addresses and the parcel they purchased.

As for other control variables, parcel size and its squared term are included, which allows us to observe the non-linear relationship between parcel size and farmland price. We expect that this relationship is nonlinear because larger parcels typically sell for a lower unit price due to the smaller pool of potential buyers, but such a discount diminishes as size increases (Thomas et al., 2024). We also control two transaction-specific variables, cash purchase and short sale indicators, as both are expected to negatively influence farmland transaction prices. Cropland is our baseline group because we expect the price of pastureland to be relatively lower than cropland. Although buyer characteristics such as farmer versus non-farmer and absentee versus resident ownership

are often viewed as important determinants of farmland prices, data limitations prevent us from incorporating these variables into our model.

Our dataset provides detailed information about parcel attributes such as land use types, parcel size, and other transaction-specific indicators including whether the sale was a short sale or a cash purchase. Considering the potential impacts of other socioeconomic conditions, we incorporate county-level population data provided by BEA, which can serve as a proxy of farmland's optional value. Even though our dataset provides information regarding the types of buyers, we do not incorporate them to maintain a clear focus on non-local buyers.

Table 1 provides the definitions of variables used in our empirical analysis, and Table 2 introduces the overall summary statistics for these variables. To provide a preliminary understanding of the sample distribution, we further divide the sample into transactions by cropland versus pastureland. The land use categories are based on the classification provided by CoreLogic, and the results clearly show that cropland parcels are typically bigger than pastureland parcels—specifically, the average cropland size is 48.2 acres, while pastureland averages 39.95 acres. Also, buyers of cropland tend to live farther away than buyers of pastureland, with the mean distance between a cropland parcel and the buyer's mailing address being 69.47 miles, compared with only 51.81 miles for pastureland. Furthermore, it is apparent that cropland is located in more urban areas than pastureland.

EMPIRICAL MODEL

Our empirical analysis is based on a hedonic price model developed by Rosen (1974). We first use log-log specifications to evaluate the impacts of non-local buyers on farmland prices as in the following equation:

$$(1) \quad \ln(P_{ict}) = \beta_0 + \beta_1 \ln(\text{Distance}_{ict}) + \beta_2 \text{Acres}_{ict} + \beta_3 \text{Acres}_{ict}^2 + \beta_4 \text{CashPurchase}_{ict} \\ + \beta_5 \text{ShortSale}_{ict} + \beta_6 \text{Population}_{ct} + \beta_7 \text{DistToWaterbody}_{ict} \\ + \beta_8 \text{DistToBigCities}_{ict} + \rho_t + \tau_c + \varepsilon_{ict}$$

where $\ln(P_{ict})$ is our dependent variable, the natural log form of the per-acre transaction price for parcel i in county c and year t . $\ln(\text{Distance}_{ict})$ is our core explanatory variable, the log form of the great-circle distance between the buyer's mailing address and the parcel centroid, allowing to be interpreted as

an elasticity. We also control a series of transaction-specific and farmland characteristics, such as size, the squared term of size, short sale indicator, and cash purchase indicator. Additionally, we control county-level population. We use county fixed effects to control unobservable time-invariant variables such as soil quality and topographic conditions, and we also control year fixed effect pt to capture time-varying unobservable factors that can affect all transacted farmland such as macroeconomic environment; β_0 is the intercept term, and ε_{ict} is the idiosyncratic error term.

Additionally, we use log-linear form to estimate the relationship between buyer-to-parcel distance and farmland prices:

$$(2) \quad \ln(P_{ict}) = \beta_0 + \beta_1 \text{Distance}_{ict} + \beta_2 \text{Acres}_{ict} + \beta_3 \text{Acres}_{ict}^2 + \beta_4 \text{CashPurchase}_{ict} \\ + \beta_5 \text{ShortSale}_{ict} + \beta_6 \text{Population}_{ct} + \beta_7 \text{DistToWaterbody}_{ict} \\ + \beta_8 \text{DistToBigCities}_{ict} + \rho_t + \tau_c + \varepsilon_{ict}$$

where β_1 should be explained as a semi-elastic effect.

Apart from that, we utilize dummy variables to estimate whether in-state/out-of-county and out-of-state buyers pay more than local buyers:

$$(3) \quad \ln(P_{ict}) = \beta_0 + \beta_1 \ln(\text{Distance}_{ict}) + \beta_2 \text{InStateOutOfCounty}_{ict} \\ + \beta_3 \text{OutOfState}_{ict} + \beta_4 \text{Acres}_{ict} + \beta_5 \text{Acres}_{ict}^2 \\ + \beta_6 \text{CashPurchase}_{ict} + \beta_7 \text{ShortSale}_{ict} + \beta_8 \text{Population}_{ct} \\ + \beta_9 \text{DistToWaterbody}_{ict} + \beta_{10} \text{DistToBigCities}_{ict} + \rho_t + \tau_c \\ + \varepsilon_{ict}$$

where $\text{InStateOutOfCounty}_{ict}$ is a dummy variable equal to 1 if the buyer resides in-state/outside the county in which parcel i is located, 0 otherwise. OutOfState_{ict} is a dummy variable equal to 1 if the buyer resides outside the state of Alabama, 0 otherwise.

RESULTS AND DISCUSSION

We first present the distribution of farmland transactions by local and non-local buyers in each county in Alabama, then we analyze the distributions of farmland buyers by their regions. From there, we report the results of regression analysis and heterogeneity analysis that compares cropland and pastureland.

Geographical Distribution of Non-Local Buyers

We present the ratio of non-local buyers in each county in Figure 1. Although data limitations prevent us from covering the entire state, the available evidence clearly indicates that Alabama's farmland market exhibits substantial variation in the share of out-of-county buyers. In particular, Figure 1 shows that in urbanized counties such as Mobile County, Montgomery County, and Houston County, the proportion of out-of-county buyers remains relatively low. By contrast, in several remote, less-populated rural counties such as Fayette County, Monroe County, and Clay County, the share of out-of-county buyers often exceeds 40%. In these counties, local land demand is relatively limited, amplifying the relative presence of outside buyers, but these relatively low land prices are also attractive to non-local buyers. Taken together, our results suggest that the influences of non-local buyers are very pronounced in remote rural areas.

The Distribution of Farmland Non-Local Buyers by Origins

We present the distribution of farmland buyers by their origins in Alabama in Figure 2. Panel A shows that local farmland buyers account for 67% of all transactions, in-state/out-of-county buyers represent 21%, while out-of-state buyers make up 12%. This indicates that although the farmland market remains dominated by local buyers, non-local buyers still play a significant role, together representing nearly one-third of all observed transactions.

Panel B shows the distribution of in-state/out-of-county buyers, with four counties standing out as the primary origins of these buyers: Jefferson County (8%), Madison County (8%), Mobile County (8%), and Shelby County (6%). These counties are also the most densely populated urban areas and home to metro areas such as Birmingham, Huntsville, and Mobile, a pattern implying that a large share of in-state/out-of-county buyers comes from urban areas, further suggesting that urban investors are targeting farmland in rural areas for investment.

Panel C depicts the composition of 1,795 out-of-state buyers, a considerable portion of which come from neighboring states: Florida (34%), Georgia (15%), Mississippi (5%), and Tennessee (7%), with the remaining 39% spread out over the U.S. This pattern suggests that while Alabama farmland attracts investors from across the country, demand is primarily driven by buyers from surrounding regions.

The Results of Regression Analysis

Table 3 reports our baseline estimates, with columns (1), (2), and (3) presenting results from the log-log form, log-linear form, and dummy variables specification, respectively.

Across all models, the distance between properties and buyers' addresses positively influence farmland prices. Specifically, as shown in model 1, each 1% increase in buyer-to-parcel distance can cause an increase of 4.3% in transaction price; similarly, the results of model 2 indicate that each additional 1 mile of buyer-to-parcel distance is associated with a 0.04% increase in farmland transaction price. We also find that, in model 3, relative to local in-county buyers, in-state/out-of-county buyers pay prices that are approximately 9.6% higher, while out-of-state buyers pay prices that are approximately 14.9% higher, holding all other factors constant. Meanwhile, a 1% increase in buyer-to-parcel distance is associated with a 2.9% increase in transaction prices, indicating that greater buyer-parcel distance is linked to higher price premium.

These results are consistent with the explanation provided by previous literature where buyers located in regions farther from the parcels suffer from a higher degree of asymmetric information and pay a higher price for farmland. Consistently, in-state/out-of-county and out-of-state buyers also pay a price premium, probably because local buyers are more familiar with local market dynamics, institutions, and transaction norms as well as agricultural productivity. In addition, even though it is not the key focus of this present study, several transaction-specific and farmland characteristics also play an important role in shaping farmland values. Specifically, parcel size shows a U-shaped relationship with farmland prices, with two transaction indicators, cash purchase and short sale, having significant effects on farmland prices. We also find that distance to big cities significantly and negatively influences farmland values, indicating that farmland located closer to large cities tends to have higher prices. To further explore potential heterogeneity, we separate the sample into two groups based on land use types. Table 4 shows that the price premium paid by non-local buyers is more pronounced for pastureland than cropland, specifically, an additional 1% buyer-to-parcel distance can lead to 4.1% and 5.4% increase in transacted prices, respectively.

These heterogeneous responses on farmland prices across land use patterns might be driven by different degrees of asymmetric information.

Our aforementioned descriptive statistical analysis results show that transacted pastureland is typically located in less-populated areas than cropland, which may suggest that pasturelands are generally located in more remote rural areas. Local market conditions in these areas typically are less transparent and accessible than urban and semi-urban areas, amplifying non-local buyers' information disadvantages and potentially making them pay a higher premium price for forest land.

CONCLUSION

Farmland is not only the most critical input in agricultural production, it's also the most valuable asset of farm households (Lee et al., 2021). Thus, an understanding of how non-local investors influence local farmland markets is important for agricultural and land use policy design. Although a large body of literature shows that non-local farmland buyers significantly influence local markets, to the best of our knowledge, most existing literature uses a simple binary variable to measure buyers' non-locality, neglecting the heterogeneity among non-local buyers. In this study, we construct a continuous distance-based variable to more accurately capture the impacts of non-local buyers on farmland prices,

Our descriptive statistical analysis reveals that the influence of non-local buyers on farmland markets is concentrated primarily in remote rural areas instead of densely-populated urban areas, since local land demand in these more rural counties is limited. We find that most in-state/out-of-county buyers originate from major urban areas such as Birmingham, Huntsville, and Mobile, reflecting the growing inflow of urban investors into rural areas to seek investment opportunities. Most out-of-state buyers, on the other hand, come from nearby states such as Georgia and Florida, which underscores the role of geographic proximity in farmland transactions.

Apart from that, our multiple regression models can help evaluate how buyer-to-parcel distance influences farmland prices in Alabama, with our results indicating that an additional 1% increase in the buyer-to-parcel distance can cause farmland prices to increase by 4.3%; the log-linear and dummy variables model specification provides similar results. These results indicate that buyers living farther from the property typically pay a higher price, probably because of greater asymmetric information.

Interestingly, this premium is heterogeneous between cropland and pastureland: an additional 1% distance

between property and buyers' mailing address can lead to a 4.1% and 5.4% increase in transacted prices, respectively. This may be that since pastureland parcels are generally located in more remote rural areas with less available market information, the non-local buyers' information disadvantages are amplified, leading to a higher price premium for pastureland. In addition, our regression results also reveal that other parcel characteristics, such as acreage, land use patterns, and short sale indicators, also play a significant role in determining farmland prices.

Even though this present study is not the first to discover that non-local buyers pay a significant price premium for farmland, our contribution to the literature is in showing that the buyer-to-parcel distance significantly influences the price of farmland and that this price premium effect is uneven across different land use types. Our empirical evidence also shows that price premiums caused by asymmetric information reflect the limited transparency in Alabama's farmland market. In particular, previous transaction records aren't typically available in rural areas, and automatic valuation models largely focus on urban areas, further exacerbating information asymmetry. Local governments can play a role in providing more information, such as establishing a digital platform to share historical transaction records to reduce search costs for all market participants.

Notwithstanding the fruitful insights into non-local buyers' impacts on farmland prices, it is critical to acknowledge potential limitations and identify avenues for future research. First, this present study only focuses on Alabama rather than a wider geographic scope. Even though the diverse land use patterns in Alabama give us a unique opportunity to observe heterogeneous price responses to different farmland buyers' identities, it would be useful to compare differences between the southeastern U.S. and the Midwest—doing so could provide better external validity of the results. Second, our analysis relies on a multiple regression framework to examine the relationship between non-local buyers and farmland prices, but we do not employ rigorous causal identification strategies. Future research may consider adopting instrumental variables or difference-in-difference to better address causal effects. Third, asymmetric information is only one possible mechanism that can explain observed price differentials between local and non-local farmland buyers, and we do not exclude the possibility of other alternative explanations. Future research can attempt to verify the rationales of different explanations.

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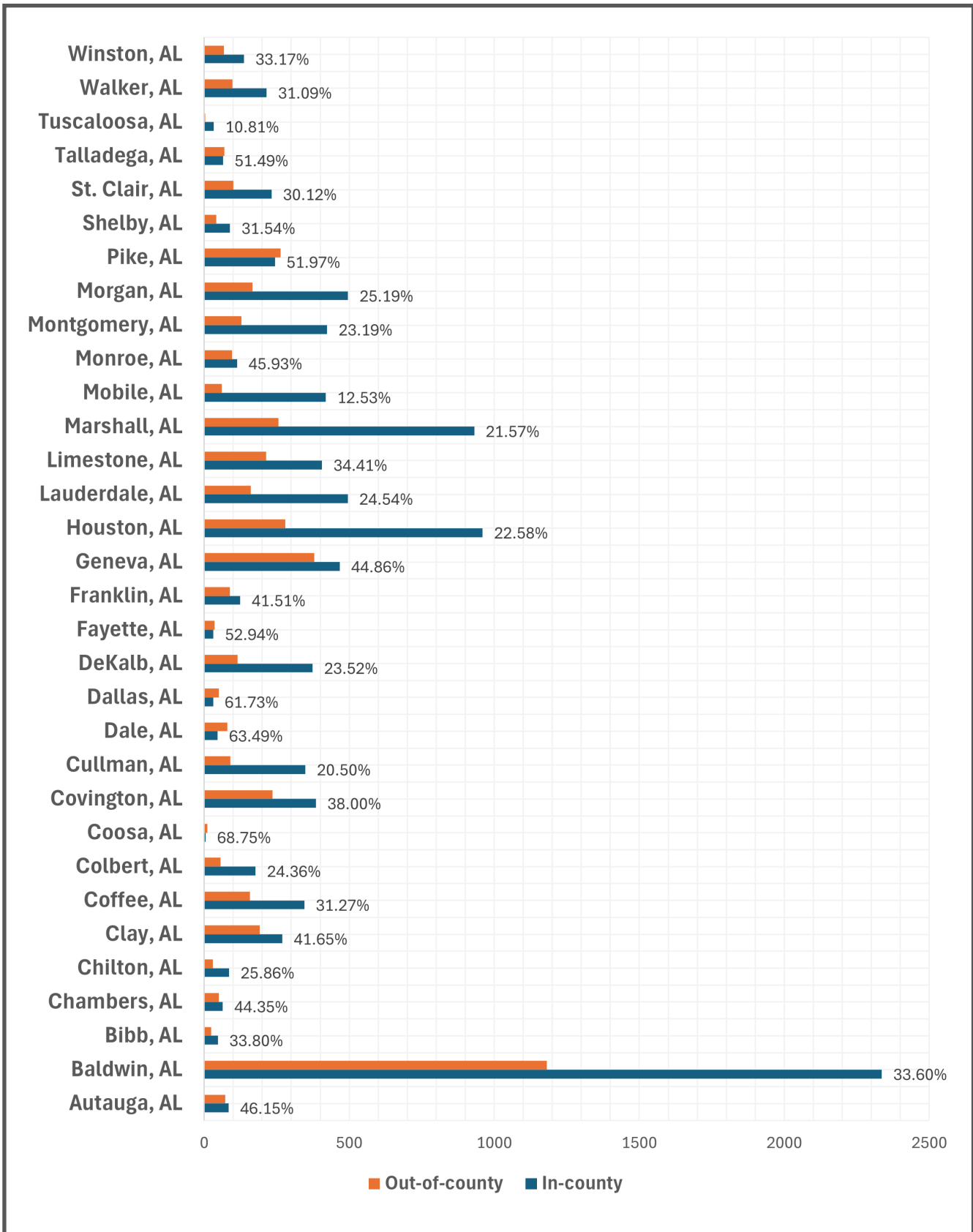


Figure 1. Distribution of farmland transactions by local and non-local buyers in Alabama counties

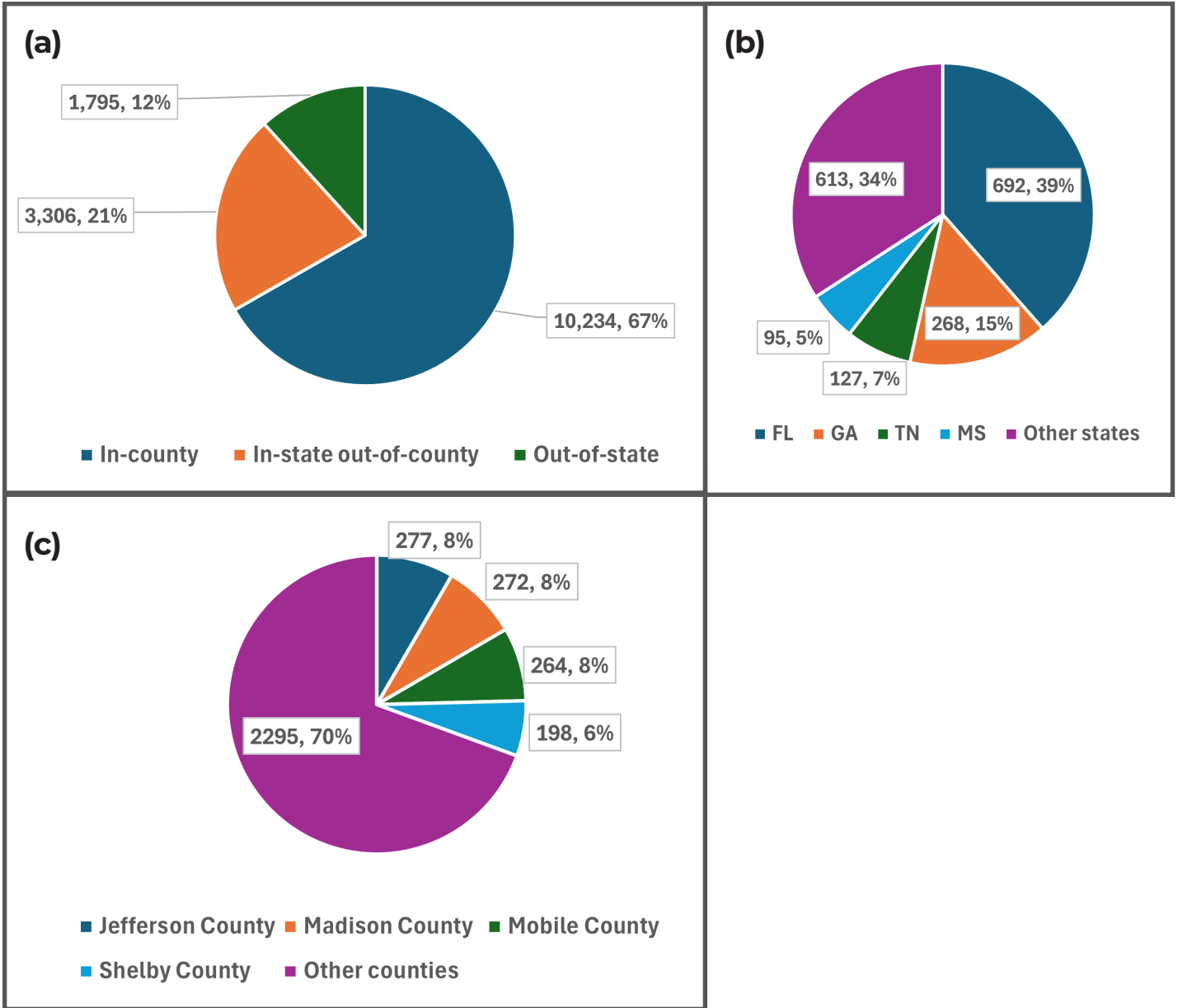


Figure 2. Distribution of farmland buyers in Alabama by origin: (a) distribution of farmland transactions (the numbers in each box indicate the number of farmland transactions in each buyer category; the percentages represent the share of total transactions); (b) county of origin of in-state/out-of-county farmland buyers (the number shown in each box indicates the count of in-state/out-of-county farmland transactions originating from that county, while the percentage represents that county's share of all in-state/out-of-county transactions); and (c) state of origin of out-of-state farmland buyers (the numbers in each box represent the number of farmland transactions originally from that state, and the percentages indicate the share of total out-of-state transactions by buyers' state of origin).

Table 1. Variables and Descriptions in the Study of the Impacts of Non-Local Buyers on Farmland Market in Alabama

Variable	Description
Dependent variable	
Ln (unit price)	Natural log of price per acre
Independent variable	
Distance (miles)	The distance between the transacted property and buyers' address
Ln (Distance)	The natural log of the distance between the transacted property and buyers' address
Distance to big cities (miles)	The distance between the transacted property and nearest big cities
Distance to waterbody (miles)	The distance between the transacted property and nearest waterbody
Acres	total acres in the parcel
Acres2	total acres in the parcel squared
Cash purchase (0/1)	If the transaction was transacted in cash =1, otherwise =0
Short sale (0/1)	If the transaction was a short sale =1, otherwise =0
Population	County-level population
Cropland (0/1)	If the parcel is classified as cropland =1, otherwise =0
Pastureland (0/1)	If the parcel is classified as pastureland =1, otherwise =0

Table 2. Descriptive Statistics of Variables in the Study of the Impacts of Non-Local Buyers on Farmland Market in Alabama

Variable	Full sample (n=15,335)		Cropland (n=9,441)		Pastureland (n=5,894)	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Ln (unit price)	8.33	1.64	8.38	1.63	8.25	1.66
Distance	62.68	221.64	69.47	230.58	51.81	206.07
acres	45.03	85.56	48.2	99.54	39.95	55.99
Short sale indicator	0	0.05	0	0.05	0	0.06
Cash purchase indicator	0.79	0.41	0.8	0.4	0.77	0.42
Population	119996	87785.1	125657	84067.2	110928	92722.4
Distance to big cities	47.03	27.13	49.33	29.37	43.35	22.63
Distance to waterbodies	0.30	0.28	0.30	0.27	0.30	0.29

Table 3. Regression Analysis Results: The Impacts of Non-local Buyers on the Farmland Market

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3
Ln (distance)	0.043*** (0.005)		0.029*** (0.007)
Distance		0.000*** (0.000)	
In-state out-of-county			0.096*** (0.037)
out-of-state			0.149*** (0.049)
Distance to big cities	-0.011*** (0.002)	-0.010*** (0.002)	-0.011*** (0.002)
Distance to waterbody	-0.056 (0.046)	-0.041 (0.046)	-0.053 (0.046)
Acres	-0.007*** (0.000)	-0.007*** (0.000)	-0.007*** (0.000)
Acres2	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Short sale indicator	-0.527*** (0.162)	-0.542*** (0.162)	-0.523*** (0.162)
Cash purchase indicator	-0.688*** (0.028)	-0.687*** (0.028)	-0.689*** (0.028)
Population	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Pastureland	-0.037 (0.035)	-0.049 (0.035)	-0.038 (0.035)
Constant	8.435*** (0.824)	8.453*** (0.824)	8.416*** (0.834)
County FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	15,335	15,335	15,335
R-squared	0.119	0.119	0.120

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Model 1 is based on log-log specification, model 2 is based on log-linear specification, model 3 is based on dummy variables specification.

Table 4. Heterogeneity Analysis of Buyer-to-Parcel Distance Effects on Farmland Prices by Land Use Types

VARIABLES	(1) Cropland	(2) Pastureland
Ln (distance)	0.041*** (0.007)	0.054*** (0.008)
Acres	-0.007*** (0.000)	-0.018*** (0.001)
Acres2	0.000*** (0.000)	0.000*** (0.000)
Short sale indicator	-0.476** (0.215)	-0.669*** (0.221)
Cash purchase indicator	-0.613*** (0.035)	-0.832*** (0.043)
Population	0.000** (0.000)	0.000 (0.000)
Distance to big cities	-0.015*** (0.002)	0.000 (0.003)
Distance to waterbody	-0.095 (0.058)	0.047 (0.075)
Constant	8.319*** (0.849)	9.397*** (0.679)
County FE	Yes	Yes
Year FE	Yes	Yes
Observations	9,441	5,894
R-squared	0.130	0.168

Note: The analysis is based on Model 1. Column (1) reports the estimates for cropland transactions, and Column (2) reports estimates for pastureland transactions. Robust standard errors in parentheses.
 *** p<0.01, ** p<0.05, * p<0.1.