

A Comparative Study of the French and U.S. Housing Markets

by

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This study examined how different urbanization patterns in France and the United States influenced the development of their respective housing markets. More specifically, the study analyzed the evolution of housing size in France and the United States during the 20th century. Descriptive statistical analysis and regression models were used to analyze data from 36 metropolitan areas in France and 144 in the United States. The results indicate the housing in the United States is consistently larger due to a propensity to build and sell single housing units at a greater rate in the U.S. This study is part of a growing body of work furthering the understanding of comparative urban economic and housing issues.

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I understand that my thesis will become part of the collection of Oregon State University. My signature below authorizes release of my thesis to any reader upon request. I also affirm that the work represented in this thesis is my own work.

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Introduction

In 2005, the United Nations estimated the 48.7% of the world's population lived in an urban area. That number is expected to exceed the 50% mark by the year 2010. These numbers indicate that for the majority of the world's population living in an urban environment will be a defining factor during the 21st century. Yet, the process of urbanization is not a new phenomenon. The first traces of urbanization date circa 6750 B.C. in present day Iraqi Kurdistan as people moved from spread out settlements to more concentrated areas of population. The development of agriculture and its corresponding social organizations permitted the development of small villages. These villages became definitive centers of urbanization as their populations increased and new social, political and economic institutions developed to support to them. This pattern of development characterized by small, interdependent communities did not change drastically over the next several millennia.

With the arrival of the Industrial Revolution in the 18th century, the rate of urbanization rapidly accelerated. The urban landscape was radically transformed as large urban areas replaced networks of small, interconnected communities. These emerging urban areas became economic, social, and political centers whose influence extended to surrounding communities. This process was temporarily halted during the world wars, but recommenced with new fervor following the end of World War II. Rapid population and technological growth helped fueled the creation of large metropolitan areas which became the standard of development during 20th century.

Although many industrialized countries experienced similar post-war economic and population booms, country-specific historical, cultural, and political circumstances

resulted in unique urban development experiences. Among these countries are the United States and France. At the beginning of the 20th century, France and the United States had similar rates of urbanization. In 1900, 40% of Americans lived in urban areas with a comparable 36% of French. However, as the century progressed, a divergence in urbanization experiences occurred as a result of country-specific factors. The objective of this paper will be to compare the unique urban development experiences of France and the United States during the 20th century. More specifically, to examine how different urbanization patterns in the two countries influenced the development of their respective housing markets. This paper will address this complex subject by examining the evolution of housing size in France and the United States. Descriptive statistical analysis and regression models will be used to determine if a difference in housing size exists between the two countries. Statistical analysis will also be used to determine some of the significant underlying variables that affect housing size. Finally, major housing legislation enacted in the two countries will be compared, to show how government policy choices also play an important role in influencing urbanization patterns and housing size.

Background

Urban Development in 20th century France

Compared to the United States, France was slow to urbanize. Small, rural communities dominated the French landscape during the early part of the century. Not until 1928, did the urban population exceed 50% and almost 20 years later in 1945, the urban population still amounted to only 53.2%. However, social and economic changes following the end of World War II helped boost the rate of urbanization. (Scargill)

Between 1945 and the end of the 20th century, three different phases of urbanization transformed France's urban landscape. The first movement, lasting from 1945 through the 1960s, was a response to the problems caused by World War II. Not only had the war damaged or destroyed much of the country's urban housing and infrastructure, but it also spurred a migration movement from rural areas to urban centers. The simultaneous occurrence of these two events put increased pressure on remaining urban areas, leading to a housing crisis. The French government attempted to alleviate the housing crisis through the large-scale construction of housing estates at the edges of cities. During the five year period following WWII, approximately 400,000 housing units were built at the edges of major metropolitan areas. The extensive building of housing estates continued through much of the 1950s and 1960s as the French government tried to replenish the housing stock.

Continued migration to urban centers during this time caused housing prices in inner cities to rise significantly, producing an enrichment of downtown areas. Unable to afford the rising rents, low-income families were pushed out to the suburbs. The suburbs also attracted an increasing number of immigrants and marginalized groups seeking

access to public housing. Contrary to the American experience, the suburbs surrounding major French cities became centers of crime and violence as a result of mounting poverty and social tensions. These characteristics still persist today as witnessed by the 2005 riots in various suburbs throughout the country.

By the end of the 1960s, the rapid population growth of the baby boom generation had exacerbated the housing crisis. To combat it, the government started a new program of city building. This second movement of urbanization during the 1970s and 1980s was characterized by the development of new cities at the exterior of the suburbs. These new cities and outer suburbs attracted an increasing number of inhabitants who were drawn by the more humane living environment and improved quality of life. Between 1982 and 1990, the population of outer suburbs increased by nearly 800,000 people, while inner cities saw their populations dwindle by over 700,000. (French Ministry of Foreign Affairs)

The new cities, the suburbs, and inner cities all saw their populations increase during the 1990s. Growth in inner cities was particularly stimulated by the urban renewal movement. Poorly instituted housing policies in previous decades had caused urban spaces to become highly specialized producing cities divided along economic and social lines. Under this third movement, the government hoped to rehabilitate downtrodden areas to produce a more homogenous mix of social and private housing in order to create greater social cohesion. “Extensive rehabilitation projects, urban renovation schemes and new public transport measures gave people not only the opportunity to live in town centers, but also the desire to do so.” (French Embassy) By the end of the 20th century,

France had truly become an urban country with three-fourths of the French population living in urban areas.

Urban Development in 20th century America

At the beginning of the 20th century, cities in America had already begun to diverge from the compact city model of their European counterparts. The swift adoption of electric streetcars and railways by American cities helped extend their boundaries beyond the traditional limits of “walking” cities. This “urban sprawl” promoted the segregation of cities into three divisions. In the center of the city was the business core, surrounded by a ring of slums and working class residential areas, and finally at the exterior of all this was a ring of prosperous suburbs. Although the first traces of the suburban movement emerged during this time, the inner city remained the heart of all activity through the world wars.

Following the end of World War II, urbanization patterns in the United States and France began to diverge dramatically. Not facing the widespread destruction of housing and infrastructure, the U.S. was able to easily transition into a period of economic prosperity. This economic growth along with other demographic and technological trends drove the most dominant urbanization movement in 20th century America.

It is during this post-war period that the suburbs emerged as smaller cities began to sprout up around large urban poles. This new form of urban development which promoted the separation of work and living spaces was made possible by the rapid dispersion of the automobile and the telephone. In addition to advancements in technology and communication, these new fringe communities were shaped by the

population explosion of the Baby Boomers, the continued migration from rural areas, the “revolution of rising expectations” and increasing income levels, and racial prejudices. (Huth) This migration pattern continued through the 1960s and 1970s as more and more businesses and people moved from the cities to the suburbs.

In the 1980s, the suburbs began to evolve from being “bedroom communities” to self-sustaining entities. The construction of mega-malls, mixed-use developments, and pedestrian malls as well as a growing business presence helped bolster the independence of these smaller cities. The dominance of the suburbs in the American urbanization movement continued through to end of the 20th century. At which time, three-quarters of the entire U.S. population lived in an urban area and over half of those living in urban areas lived in the suburbs not central cities. (World Resource Institute)

The United States and France may have begun the 20th century with similar urbanization patterns, but over the next one hundred years a great divergence in urbanization styles developed. In France, there was a greater emphasis put on the development of inner cities and high density suburban areas. In contrast, a low density suburban model dominated the American urbanization experience. The remainder of this paper will focus on how these different patterns of development had a significant impact on the housing markets in the two countries.

Methodology and Data

Developing a specific path of inquiry to compare the impact of urbanization styles on housing markets in France and the United States posed numerous problems. Both countries had a particular way of viewing and recording the urbanization process during the 20th century. This meant that the topic of comparison had to be dictated by the data that was available from the U.S. Census Bureau and *l'Institut national de la statistique et des études économiques* (The National Institute of Statistics and Economic Studies). After careful examination of the data, the comparative study of housing size in France and the United States was identified as the most relevant path of inquiry.

In addition to comparing the evolution of housing size, the examination of underlying variables influencing size was another critical component. Density, GDP per capita and the percentage of single-family housing were selected as the variables expected to have the greatest impact on housing size in both countries, based on background research.

Basis for Geographic Comparison

To compare trends in housing size in France and the United States an effective basis of geographic comparison needed to be established. The geographic divisions selected for the purpose of this study were *aires urbaines* (“urban areas”) in France and metropolitan statistical areas (MSAs) in the U.S. These geographic areas are characterized by a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core. The largest city in each is designated as the principal city. These areas were selected as the most suitable

divisions for comparison because of their similar definitions and treatment by their respective census offices as well as their fulfillment of the data requirements for the study.

A total of 36 “urban areas” were chosen in France. The urban areas were selected from the eight *zones d’études et d’aménagement du territoire* (ZEAT)¹: Région parisienne, Bassin parisien, Nord, Est, Ouest, Sud-Ouest, Centre-Est, and Méditerranée. The five “urban centers” with the highest populations were chosen from seven of the eight zones. The 36th urban area is Paris which comprises the entire area of *Région parisienne*.

Using a weighted average of population and GDP per capita (*PIB par habitant*), each French *aire urbaine* was matched with four different U.S. metropolitan statistical areas, one from each of the four different regions (East, Midwest, South and West) as classified by the U.S. Census Bureau.² Four MSAs were used in the place of one to account for any regional differences in housing patterns that might have existed in the United States.

Data

All data from the United States is from the 2000 Census conducted by the U.S. Census Bureau. French data regarding number of rooms, density, and percentage of single-family housing is from the 1999 Census conducted by *Insee*. GDP per capita data is also from this census, however, departmental data was used as a proxy because GDP per capita numbers were not available for individual urban areas. The French data was

¹ See Map 2: Areas of Study and Territorial Development

² See Map 6: Map of U.S. Census Bureau Divisions

translated to match the format of the American data. This required converting density from persons per square kilometer to persons per square mile and converting GDP per capita from euros to dollars at the average 2000 exchange rate. Additionally, French time tranches were changed to match the U.S. decade format.

Tables of Characteristics

Once all the data had been collected, tables of characteristics were created to establish any general trends in the data. They are organized into three different categories: a comparison of France and the United States, a comparison of France and the United States across time, and a comparison of divisions within France and the United States. The means and standard deviations for the four variables of number of rooms, density, GDP per capita, and percentage of single-family housing are presented in the tables. The characteristics for GDP per capita and density are not included in the across time comparisons because the data was not available.

1. Comparison of France and the United States

Table 1: Comparison of France and the United States

	France	US	z-statistic ³
# of rooms	3.84 (.297)	5.31 (.314)	64.57
Density	943 (559)	224 (208)	18.54
GDP per capita	22,428 (4,130)	24,815 (3,778)	7.71
% Single	48.55% (17.65)	82.21% (10.54)	26.80

* Number in parenthesis below each mean is the standard deviation.

³ The z-statistic is used to test the null hypothesis that there is no difference between two population means. A number greater than the absolute value of 1.96 indicates with a 95% confidence interval that the population means are unrelated.

From Table 1, the means of number of rooms for France and the U.S. in combination with the z-statistic shows conclusively that homes are on average larger in the U.S. than in France. Population densities are significantly higher in French metropolitan areas with a mean exceeding four times that of the U.S. The means for GDP per capita suggest that Americans are on average wealthier than the French. Finally, the most salient variation between the two countries is in the percentage of single-family housing. In the United States, single-family units dominate the housing stock. However, in France with a mean of 48.55% multifamily housing is more prevalent than single-family housing.

2. France and the United States across Time

Table 2: France across Time

	Before 1949	1950-1959	1960-1969	1970-1979	1980-1989	1990- 1998
# of rooms	3.77 (.350)	3.77 (.300)	3.78 (.287)	3.90 (.257)	4.07 (.227)	3.73 (.219)
% single	57.13 (18.92)	37.79 (18.03)	38.31 (16.75)	45.8 (13.04)	60.26 (12.22)	52.01 (13.23)

* Number in parenthesis below each mean is the standard deviation.

For the most part, housing size changed very little in France during the 20th century. The percentage of single-family housing, on the other hand, fluctuated considerably between 37.79% and 60.26%. These substantial deviations in the percentage of single-family as well as the smaller variations in housing coincided with the urbanization movements occurring at the time. During the 1950s and 1960s housing size remained stagnant. There was also a dramatic decline in single-family housing due to the extensive construction of multifamily housing estates. Then during the 1970s and 1980s housing size and the

percentage of single-family housing began to increase as the new city movement permitted the construction of larger single housing units. Finally, housing size and the percentage of single-family housing declined in the 1990s as the urban renewal movement took off and people began moving back to inner cities.

Table 3: The United States across Time

	Before 1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1998
# of rooms	5.29 (.347)	5.15 (.193)	5.31 (.307)	5.30 (.300)	5.38 (.304)	5.44 (.330)
% single	81.57 (11.21)	85.38 (5.53)	81.57 (11.21)	81.63 (11.19)	81.57 (11.21)	81.57 (11.21)

* Number in parenthesis below each mean is the standard deviation.

During the 20th century, American housing followed an upward trend in housing size increasing by 0.15 rooms between 1949 and 1998. Single-family housing dominated the housing stock never dropping below 81%. There were some slight variations from the general trend for both variables during the post-war period of the 1950s. During this period housing size decreased while the percent of single-family homes increased. These discrepancies are imputable to the rapid expansion in the housing stock and the beginning of the suburban movement.

3. Divisional Comparison

Table 4: France – A Divisional Comparison

	Paris	Parisian Belt	East	Southeast	Southwest	West
# of rooms	3.23 (.116)	3.78 (.194)	4.07 (.160)	3.63 (.305)	3.88 (.190)	3.92 (.232)
Density	1,994 (n/a)	561 (166)	1,299 (767)	1,014 (283)	549 (139)	653 (137)
GDP per capita (\$)	41,662 (n/a)	23,103 (2,069)	20,527 (2,208)	22,247 (3,290)	22,538 (1,768)	21,601 (1,581)
% Single	27.93 (7.94)	49.37 (13.86)	57.18 (20.00)	38.18 (16.19)	49.75 (9.78)	54.13 (13.00)

* Number in parenthesis below each mean is the standard deviation.

^ The ZEATs of Centre-Est, and Méditerranée were combined to form the Southeast division. Additionally, the ZEATs of Nord and Est were combined to form the East division.

Divisional data from France can be divided into two categories (excluding Paris) based on historical and demographic trends. The first category comprises the divisions of the East and West. Housing is the largest among these two divisions, with 4.07 and 3.92 rooms respectively. They also have the highest percentage of single-family housing. Two factors that help explain the higher levels of single-family housing and larger home size are the age of housing stock and population growth. The East and the West divisions were the areas hardest hit during World War II. As a result, they have higher percentages of housing dating from the later half of the century when housing tends to be slightly larger. Secondly, these divisions have experienced relatively slow growth in their populations. Contrary to the East and West, the other divisions of the Parisian Belt, the Southeast, and the Southwest experienced high population growth between the 1950s and 1990s. Consequently, it is among these high growth divisions that there is a lower percentage of single-family housing and smaller homes.

Table 5: U.S. – A Divisional Comparison

	Midwest	North	South	West
# of rooms	5.29 (.265)	5.53 (.285)	5.23 (.207)	5.19 (.361)
Density	235 (241)	291 (237)	240 (146)	131 (156)
GDP per capita (\$)	25,867 (2,306)	26,275 (3,645)	23,623 (2,605)	23,469 (5,047)
% Single	85.92 (7.63)	74.01 (7.63)	83.94 (9.76)	84.86 (7.49)

* Number in parenthesis below each mean is the standard deviation.

Housing in the Midwest and the South displays similar characteristics. Densities, housing size, and the percentage of single-family housing are comparable between these two divisions. It is in the divisions with the oldest and newest housing stock that there are the greatest variations. In the North, where housing stock is the oldest, houses are on average larger than in other divisions. This is in spite of the fact that it has the highest density and lowest percentage of single-family housing. In contrast, in the West where housing stock is newer, houses are the smallest even though the division had the lowest density and a high proportion of single-family housing.

Regression Results

Having established that housing is larger in the United States than in France, a series of regression models were created to determine how accurate the variables of density, GDP per capita, and percentage of single-family housing are at predicting variations in housing size. The regression models follow a similar format as the tables of characteristics. They are divided into four categories: a comparison of French and U.S. regression models, a comparison of French and U.S. regression models across time, divisional regression models, and French and U.S. aggregate regression model.

1. A Comparison of French and U.S. Regression Models

Table 6: French and U.S. Base Regression Models

	Intercept	Density	GDP per capita	% Single	Adjusted R ²
France	3.8722 (31.560)	.000005 (.181)	-.000019 (-4.4761)	.7915 (8.001)	.3798
US	5.6220 (42.175)	.0001 (1.519)	.0000057 (1.5957)	-.5744 (-5.055)	.0735

* Number in parenthesis below each coefficient is the t-stat.

Given the three variables of density, GDP per capita and percent of single-family housing, the regression model appears to be a better predictor of housing size in France with an adjusted R² of .3798 compared to 0.0735 for the U.S. In France, density does not have a major impact on the size of housing. Instead, GDP per capita and percentage of single-family housing play an important role as indicated by their high t-statistics and bigger coefficients. In the U.S. model, it is density and the percentage of single-family housing that are important factors in determining housing size. It is important to note that

although the percentage of single-family housing is an important factor in both countries, it becomes negatively correlated to housing size in the United States.

2. A Comparison of French and U.S. Regression Models across Time

Running the regressions across time increases the accuracy of the models for France and the United States. For France, density and GDP per capita are consistent with the base model. However, the proportion of single-family housing becomes more significant, increasing by 0.06. The decade coefficients and t-statistics fall in line with the temporal descriptive statistics for France. Compared with France, decade variables are less significant in the United States. However, they still contribute to the model during the 1950s, 1980s and the 1990s. The decade coefficients achieved with this model correspond to the trends in mean housing size obtained in table 3. That is to say that the means predict that housing size decreases during the 1950s and then continues to increase in the following four decades.

Table 7: French and the U.S. Regression Models across Time

	Intercept	Density	GDP per capita	% Single	Before 1949	1950-1959	1960-1969	1970-1979	1980-1989
France	3.6830 (27.892)	.000004 (.13403)	-.000018 (-4.5300)	.8507 (8.014)	-	.1650 (3.049)	.1669 (3.096)	.2288 (4.443)	.2717 (5.410)
U.S.	5.4883 (42.043)	.0001 (1.965)	.000067 (.000006)	.0000034 (8.014)	-	-0.1199 (-3.479)	0.0145 (0.425)	.0143 (0.418)	0.0932 (2.724)

* Number in parenthesis below each coefficient is the t-stat.

Table 8: France – Divisional Regression Model

Intercept	Density	GDP per capita	% Single	Paris	Parisian Belt	East	Southeast	Southwest
3.3448 (11.241)	-0.00002 (-.547)	-0.000005 (-0.835)	.5708 (5.944)	-	0.2846 (1.826)	0.5282 (3.334)	0.1992 (1.296)	0.3790 (2.389)

* Number in parenthesis below each coefficient is the t-stat.

3. Divisional Regression Models

Taking divisional differences into consideration increases the reliability of the French regression model. For this model density remains insignificant and GDP per capita becomes inconsequential. Yet, the proportion of single-family housing still remains an important factor. Coefficients and t-statistics for the various divisions indicate that division does play a role in determining housing size. The higher coefficients for the East, West, and Southwest are consistent with the descriptive statistics in table 4 which show that the housing stock is the largest in these divisions.

Table 9: U.S. – Divisional Regression Model

Intercept	Density	GDP per capita	% Single	M	N	S	W	Adjusted R ²
5.3802 (38.363)	0.2163 (7.201)	-0.0662 (-2.324)	-0.0855 (-3.021)	-	.00017 (2.5994)	-0.0000009 (-0.246)	-0.1219 (-1.034)	.1883

* Number in parenthesis below each coefficient is the t-stat.

Divisional considerations also result in changes to the base regression model for the United States. Density increases in importance with a much higher t-statistic and coefficient. GDP per capita also becomes a more important variable. However, in this model it is negatively correlated with respect to housing size. The proportion of single-family housing in contrast, plays a smaller role in determining housing size among divisions. The divisional coefficients and t-statistics are consistent with the divisional descriptive statistics which established that housing is the largest in the North, of medium and similar size in the Midwest and South, and the smallest in the West.

4. French and U.S. Aggregate Regression Model

Table 10: French and U.S. Aggregate Regression Model

	Intercept	Density	GDP per capita	% Single	France	U.S.	Adjusted R ²
Country Excluded	2.5912 (22.306)	-0.00047 (-11.654)	-.000051 (14.894)	.7928 (19.206)	---	---	.5568
Country Included	5.2284 (46.814)	.0001 (3.368)	.0000015 (0.531)	0.0293 (0.354)	-1.5445 (-34.120)	-----	.7785

* Number in parenthesis below each coefficient is the t-stat.

For these last two regression models, the French and U.S. data was pooled together to determine how significant the country of origin is in determining housing size. In the country excluded model all data was aggregated with no regard for the country of origin. Under this model all three variables become very significant with t-statistics exceeding 10.

However, when country is taken into consideration it produces the most accurate model. Under this 5 variable model, 77.85% of the disparity in housing size in the two countries is accounted for. GDP per capita and the proportion of single-family homes becomes insignificant. It is instead density and country which play the most important role in explaining the difference in housing size in France and the United States.

Several conclusions can be drawn when combining the results from the various models. In France, regardless if year or divisions are taken into consideration, housing size is determined by GDP per capita and proportion of single-family units. While in the United States it is density and percentage of single-family housing which are the most important factors. It is however, country which has the biggest weight in determining

housing size, with houses in France averaging 1.5 rooms smaller than houses in the United States.

20th Century Housing Policy

The results of the tables of characteristics and the regression models indicate that housing in the United States is clearly larger. Even housing built before the post-war reconstruction period exhibits this difference, with housing built prior to 1949 averaging 5.29 rooms in the U.S., while only 3.77 rooms in France. This size difference was then reinforced by different housing and urban development policies instituted throughout the 20th century.

1900-1944

During the later half of the 19th century, the concept of state intervention in the housing sector rooted itself in the French mentality. This notion that the government could and should have an important role in financing and controlling housing would significantly impact housing policy during the subsequent century. As the 20th century began, so too did the French government's attempts at regulating housing. The government would first direct its efforts at increasing the availability of accessible housing for low-income families. The Strauss law of 1906, in combination with the existing system of "inexpensive housing" (*habitation à bon marché* - *HBM*), created tax incentives and low-interest borrowing for businesses willing to build low-rent housing units. Under the Ribot law of 1908, the state also tried to help low-income families by subsidizing the purchase of land in order to facilitate homeownership. The law had a secondary role in that it temporarily slowed down the rural exodus occurring at the time.

The necessity of state involvement in the housing sector was bolstered during World War I due to a series of laws that rebuffed property owners. A moratorium on

rents in 1916 allowed renters to stop paying rent to landlords for an indefinite period of time. Landlords and property owners were again slighted in 1918, under the similar legislation of the Lauche Levasseur Law. The lasting consequences of these laws dissuaded private capital investment in the residential real estate market because it was deemed unprofitable. It also deterred existing landlords from maintaining their properties.⁴

Housing conditions in cities continued to deteriorate following the war, creating a housing crisis that would last for the next couple of decades. To tackle the crisis the country relaunched its program of *HBM* housing in 1928. A five-year plan developed by the government called for the construction of 200,000 *HBM* housing units as well as an additional 60,000 housing units at moderate rent prices. However, the financial burden of such a program turned out to be too great. This effort in the late 1920s was one of the French government's last attempts to solve the housing crisis before the onset of WWII.

At the beginning of the 20th century, the United States was experiencing many of the same housing issues as France. The inner cities had become crowded and given rise to slums. Investigations by the federal government into the lack of quality housing for low-income families spurred the movement to build inexpensive and healthful habitations. However, these public housing efforts were interrupted by World War I.

The shift towards a wartime economy magnified housing problems as employers were unable to find sufficient housing for their workers. In order to support the war industries, the government commissioned some 13,000 single-family dwellings to be built under the Loans for Housing Shipyard Employees and the Housing for War Workers legislation.

⁴ The moratorium on rents was not repealed until 1934.

As World War I ended, the country shifted to a period of economic prosperity. Few changes were made to the existing housing legislation until a severe housing crisis was triggered by the Great Depression. Under the direction of President Hoover, a series of housing acts were passed between 1932 and 1933 to stabilize the mortgage lending institutions, stimulate housing construction and develop a program to promote homeownership.

In 1934, the building blocks of present-day American housing policy were laid with the National Housing Act. The act created the Federal Housing Administration (FHA) to oversee a program designed to stimulate the release of private capital for homeownership. This agency encouraged banks, building and loan associations, and others to make loans for building homes. The creation of the Federal National Mortgage Association (FNMA, Fannie Mae) in 1938 continued the federal government's efforts to stimulate homeownership rates and increase the availability of affordable housing.

The 1930s also marked the federal government's first foray into public housing. In 1937, the United States Public Housing Authority was created to administer a program of slum clearance and oversee the construction of low-income housing. The Authority provided federal funding to local governments to help accomplish the programs designed by the federal government. This program in addition to others created during the 1930s guided the direction of federal public housing policy through the 1940s. (HUD)

The United States' entry into World War II intensified demands for housing. However, no significant changes to existing housing policies occurred during WWII because government resources were diverted elsewhere. Nonetheless, legislation was

passed that liberalized the mortgage and insurance regulations to permit the rapid expansion of single-family housing.

1945-1959

Following World War II, France and the United States experienced two very different reconstruction periods. France was reeling from a war that ravaged its country and destroyed much of its housing. Approximately 500,000 housing units were destroyed and 1,900,000 more were damaged. (Cohesion Sociale) This large destruction of housing coupled with the mass migration of populations towards urban centers renewed the housing crisis. One of the first measures the government took was to control rent inflation. The Law of 1948 fixed rent-rates at a certain level based on the square footage and furnishing of the property. This policy again shifted power and control away from property-owners and to the state.

As France moved into the 1950s, the French government was faced with the task of developing new organizations to administer its housing programs. The only institutions that existed at the time were the Bureau of Reconstruction and Urbanization (*Ministère de la Reconstruction et l'Urbanisme*) and the Bureau of Construction which dated from the immediate post-war period. In addition to these federal agencies, there existed a jumble of local agencies and associations. The muddle of various competing groups as well as the emergence of new housing issues prolonged the housing crisis.

French housing policy of the 1950s attempted to resolve these issues by defining the degree of state involvement, the methods of state involvement, and the beneficiaries of state assistance. (Calcoen) The Courant Plan adopted in 1953 was the earliest effort to tackle the housing crisis and define the role of the state. In order to remedy the

housing crisis, it implemented a three-pronged strategy consisting of public housing, private construction, and land-bank financing. This marked the beginning of intensive state intervention in the housing sector. A second attempt at creating a comprehensive housing policy was made in 1957 with the Framework Law (*loi cadre*). This piece of legislation recognized that the state's role should not be limited to the construction of social housing, but it should instead also extend to its maintenance and outfitting.

By 1958, France had developed the appropriate mechanisms to successfully administer its housing programs. These reworked political mechanisms along with housing policies of the late 1950s created “a veritable public system of housing production in which housing took on a new statute, that of a public good, with the intrusion of the state in its regulation and supply being justified by a need to respond to the serious housing crisis in France at the time.”⁵

At the same time, the United States was not dealing with the mass destruction of housing units, but rather with the return of a large number of G.I.s and other wartime workers. To accommodate these veterans and address the increasing demands on existing housing stock, the U.S. passed a series of laws that would fundamentally alter the shape of urban development for the rest of the century.

The Housing Act of 1949 established the purpose of national housing policy to be twofold: 1. The general welfare and security of the Nation required the realization as soon as feasible of the goal of a decent home and suitable living environment for every American family, 2. Private enterprise should be encouraged to take as large a part as possible in fulfilling housing need with the government stepping in only when it was

⁵ Translated from French to English by Elizabeth Langley in The Changing Visage of French Housing Policy and Finance.

deemed necessary. (Committee) This act proved to be pivotal in the housing industry broadly, and for homeownership specifically by expanding the powers of mortgage institutions. (Colton) It also allocated millions of dollars to FHA to provide mortgage insurance for single-family homes.

In addition to the Housing Act of 1949, several complementary policies also helped promote the development of single-family homes. Among these was the act that created the national highway system. The creation of the highway system was a critical component to the development of the suburbs because it allowed families to work inside the cities and commute with ease to homes on the fringe. The federal government's policies during this decade were so successful at promoting single-family housing that by the end of the 1950s the percentage of single housing units had increased from 82% to 85%.

1960s

The expansion of cities and growing urban tensions in France prompted Plan III. The Plan centered round the idea of urban renewal and developed a dual-strategy to combat intercity problems. Substandard housing would first be demolished, followed by the massive construction of new housing units. From the late 1950s to the present, some 120,000 units were demolished and 190,000 constructed as a result of Plan III. (Cohesion Sociale) The Malraux Law of 1962 was an extension of the urban renewal movement. The law required that a greater emphasis be put on resolving urban issues, citing that a total abandonment of France's *centre villes* for its suburbs would have negative consequences for social life and therefore housing. (Langley) In many ways the French

government was trying to avoid what was occurring in the United States with the abandonment of U.S. cities for the suburbs. To further promote urban renewal the law provided fiscal relief by allowing those making improvements to historic buildings to deduct the cost of restoration from their income.

Efforts were also made to stimulate homeownership with the creation of the home savings bank in 1965 and the mortgage market in 1967. These institutions not only helped to increase public and private involvement in the housing sector, but also augmented city retention rates.

During the 1960s, in light of worsening problems in American cities, including urban riots, the federal government devised new aid programs to help with community development and alleviate serious economic, social, and class tensions in urban areas. (Colton) The Housing Act of 1964 incorporated a series of titles to address the aforementioned problems by authorizing a new program of rent supplement payments to help make privately-owned housing available to low-income individuals and families. (Committee of Financial Services) However, these policies did not stop the flight of middle-upper class families from troubled inner-cities to the suburbs. Instead, they tended to reinforce the suburban pattern of development with its emphasis on single-family housing. Consequently, there was increase in the size of housing from 5.15 rooms during the 1950s to 5.31 rooms in the 1960s.

Policies of 1968 furthered indirect support mechanisms favoring the development of single-family homes. The Housing and Urban Development Act of 1968 changed the mortgage finance structure by dividing Fannie Mae into two entities consisting of the original body and a secondary body, the Government National Mortgage Association

(GNMA, Ginnie Mae). Ginnie Mae helped improve liquidity in the mortgage market as well as act as a guarantor of mortgage-backed securities. The triad of modern American financial housing institutions was completed with the creation of the Federal Home Loan Mortgage Corporation (FHLM, Freddie Mac) in 1970. Freddie Mac like Fannie Mae helped stabilize the mortgage markets and increase affordable homeownership opportunities.

1970s

Continued rapid population growth in large metropolitan areas in France, motivated the government to launch a program of new city building. In total, nine new cities were built near existing metropolitan areas including the five cities of Marne-la-Vallée, Yvelines, Sénart, Cergy-Pontoise, Evry, and Saint-Quentin. The program aimed not only to relieve overcrowding in cities, but also to reduce the construction of high-rise estates and diminish the supremacy of major urban centers by developing a polycentric urbanization model.

By the mid-1970s, France was building close to 500,000 housing units a year in the new cities and existing metropolitan areas. With stable growth in the housing market and a positive outlook for the overall economy the housing crisis was for all intensive purposes over. The State then sought to make a gradual withdrawal from the housing market, transferring power back to the private sector. 1977 marked an important change in French housing policy. Previously, state assistance had for the most part been directed at investment in housing stock (*aide à la pierre*). This system had been ineffective at

relieving the housing crisis and been very costly. Henceforth, assistance would be provided directly to the individual.

This shift away from public housing in combination with the new city movement had a significant impact on the housing stock built during the decade. As a result of these policies, housing size increased from 3.78 rooms in the previous decade to 3.90. There was also a large jump in the percentage of single-family housing from 38.31% in the 1960s to 45.8%.

In the United States, the 1970s marked a period of reassessment and reorganization of housing policy. The rent programs implemented during the 1960s had become financially burdensome and uncertainty arose as to whether the federal government would be able to continue funding such programs. In 1973, President Nixon suspended all public housing assistance programs out of concern for their rapid growth and long-term budget commitments. (National Association of Home Builders) Then in 1974, the United States passed the Housing and Community Development Act which fundamentally changed how public assistance was provided. The act created a public assistance program similar to the one that had been developed in France, shifting assistance from a building-based program to a people-based program in the hopes of cutting costs. (Wheaton)

Facing increasing inflationary pressures in the later half of the decade, the federal government also instituted a number of reforms to existing housing finance mechanisms to facilitate homeownership. During this decade, 5 major changes were made to stimulate homeownership: 1. increasing the maximum mortgage and loan amounts under FHA insurance programs; 2. removing the ceiling on interest rates on FHA and VA mortgages;

3. permitting HUD to allow greater flexibility in repayment arrangements for Federally-insured loans; 4. allowing investors a tax credit on the interest they earn from residential mortgages; and 5. authorizing Federal reinsurance for purchase by private mortgage insurance companies. (Committee) These policies helped increase single-family homeownership rates from 78.3% during the 1960s to 81.6% in the 1970s. (U.S. Census)

1980s

The outer-suburban movement continued in France through the 1980s. Decentralization laws of 1982 and 1983 helped promote suburban growth by shifting decision making and budgetary controls away from the national government to regional, departmental, and local government agencies. This transference of power permitted the governmental divisions to develop their own housing policies to tackle their own particular housing problems. As a result of these policies, France saw the average size of its housing stock increase from 3.90 rooms to 4.07. Moreover, the percentage of single-family homes finally surpassed 50%, reaching 60.28%.

The French government also tried to promote homeownership by instituting a stringent economic policy to control growing inflationary pressures. However, the policy actually had the reverse affect of dissuading homeownership because low inflation increased the real burden of the mortgage debt taken on. This flawed policy decision as well as others in the later half of the decade would require increased state presence and influence in the housing sector during the 1990s.

The 1980s marked another period of reassessment of U.S. housing policy. The failure of previous alterations to control public housing costs induced the government to

put a cap on public housing expenditures and make cuts where possible. (Colton) With efforts focused on reducing state expenditures, housing policy shifted to more indirect methods through a series of changes to existing tax codes and mortgage laws. Alternations to tax codes were particularly aimed at changing the development mix of rental and multifamily housing. The Tax Act of 1986 eliminated the tax-favored status of rental housing. At the same time it created the Low-Income Housing Tax Credit (LIHTC) to persuade private capital investment in low-income housing.

The large scale failure of savings and loans institutions in the mid-1980s, followed by stringent credit policies, prompted amendments to mortgage laws. The principal piece of legislation, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989 aimed at reworking existing institutions and systems. Although the principal goal of FIRREA was to stabilize the mortgage market, low and middle income families were the principal beneficiaries.

1990s

At the beginning of the 1990s, there was a reemphasis put on public housing that is reflected in the policies of the period. The Law Besson of 1990 established the right to housing. This “right” which was a matter of national importance guaranteed that every individual or family had the right to assistance from the state to achieve a decent housing situation and maintain themselves there.

Slowing homeownership rates among low and middle income families prompted government intervention. To stimulate the construction industry and promote homeownership the French government developed a system of government-backed

mortgage securities (*Prêts à l'Accession Sociale et le Fonds de Garantie de l'Accession Sociale à la propriété*). An additional alteration to existing policy in favor of homeownership was the zero percent loan (*prêt à taux zero*). This program helped those with limited means ascend to the status of homeowner. The shift in government focus back to public housing produced a decrease in the size of housing from 4.07 rooms in the 1980s to 3.73. It also resulted in a decline of single-family housing from 60.26% to 52.01%.

In the United States, housing policy of the previous decades had helped resolve many of the issues concerning the quality of housing, overall housing conditions, and residential crowding. Yet, issues related to public housing, mortgage-finance, and equal opportunity in housing and finance still persisted. (Gabriel) American housing policy of the 1990s attempted to resolve the remaining problems through the creation of overarching housing policies centered round the government's goal of providing a decent home for every American.

The major attempt to provide a decent home occurred as a measure to improve homeownership rates among low and middle income families. Under the Homeownership and Opportunity for People Everywhere (HOPE) title of 1990, the government proposed several programs to convert public housing to owner-occupied housing units.⁶ Contrary to previous programs, HOPE focused on converting multifamily housing units instead of single-family housing units. Even though additional legislation throughout the 1990s also put increased emphasis on multifamily dwelling, it did not have a significant impact on the composite of housing stock. The percentage of single

⁶ Provision of the 1990 Cranston-Gonzalez National Affordable Housing Act

housing units remained strong at 81.57% and American housing grew in size for the fourth straight decade.

Taxes

Housing policies were not the only way that the French and U.S. governments intervened to influence urbanization patterns. Different systems of taxation in the two countries also played a significant role in reinforcing the discrepancy in housing size. In France, the value added tax (VAT) is the primary source of income making up 45% of all revenues collected by the state. It differs from the sales tax system in the United States because a tax is levied each time value is added to a good, resulting in an end product that is more expensive because it is taxed multiple times.⁷ This sort of tax system tended to prevent the adoption of a low-density, large home suburban model because it penalized the use of energy and the purchase of household durables essential to its implementation. (Nivola)

France also developed a dual-property tax system which plays a secondary role to the VAT. The first is the general property tax (*taxe foncière*) similar to the American property tax. In addition to a traditional property tax, a *taxe d'habitation* or residential tax is assessed on every individual regardless of their housing situation (house, apartment, owner, renter, etc.). This double-taxation system also increased the financial burden of owning housing, particularly large single units.

The United States is in contrast, highly dependent on property taxes. This type of tax system tended to lead local governments to support low-density urbanization models because it increased their overall revenue base. The tax-exempt status of municipal

⁷ The most recent VAT is 19.6% in France while the average sales tax in the United States ranges from 5-7%.

development bonds also allowed local governments to raise funds more easily to support the American suburban development model. This propensity for single-family homes has been bolstered by favorable tax-incentives, with federal tax law allowing the deduction of mortgage interest, property taxes, home equity loan interest as well as a whole set of other deductions.

Summary

French housing policy during the 20th century was defined by state involvement. Although its tactics changed numerous times, its presence was continually felt. During the first half of the century the state was heavily involved through the construction and management of public housing projects. In the 1970s, the government shifted away from a direct involvement scheme to more indirect methods by providing assistance via subsidies to individuals and families. Then during the 1990s, policy shifted again to focus on direct assistance. This hodgepodge of public housing policy during the 20th century seems to be one of the principal reasons for the high variability in single housing units and the relative sluggish growth in housing size.

On the other hand, homeownership goals were central to American housing policy. The U.S. government has facilitated the realization of the American dream of owning one's own home through a variety of policies affecting tax liabilities, mortgage finance instruments and financial institutions. (Gabriel) These policies favoring single-family homeownership were a key factor in maintaining single-family housing above 80% throughout the 20th century. The greater emphasis on homeownership in the United

States might also explain why the U.S. has seen a gradual increase in the size of its housing stock while housing size in France has remain stagnant.

Conclusion

The results of the research conducted in this paper indicate that housing in metropolitan areas is larger in the United States than in France. The data reveals that U.S. homes are on average 5.31 rooms whereas French homes average only 3.84 rooms. This difference in housing size is particularly imputable to dissimilarities in the percentage of single housing units. In the United States where houses are larger, single-family housing makes up 82% of all housing stock, while they only comprise 48% of housing stock in France. These disparities in housing size and percentage of single housing units persisted throughout the century as a result of different housing policies and tax systems in the two countries,

It is with the study of these housing policies and systems of taxation that new avenues in the comparative study of housing markets are opened up. U.S. policy has arguably placed a greater emphasis on increasing homeownership rates than French policy. Consequently, homeownership rates are higher in the U.S. The International Union for Housing Finance estimated that in 2002, 67% of Americans owned their own homes compared to 56% of the French. Yet, even though American policies and tax credits have focused on increasing single-family homeownership, it is uncertain if homeownership is a factor in determining housing size.

Additionally, the question arises of how the different tax systems in the two countries affect household spending patterns. Current data suggests that the existing tax systems tend to dissuade French spending on housing, with the French spending only 20% of their income on housing compared to 30% for Americans. If the V.A.T. does dissuade spending on housing as Pietro Nivola suggests, then where do the French spend

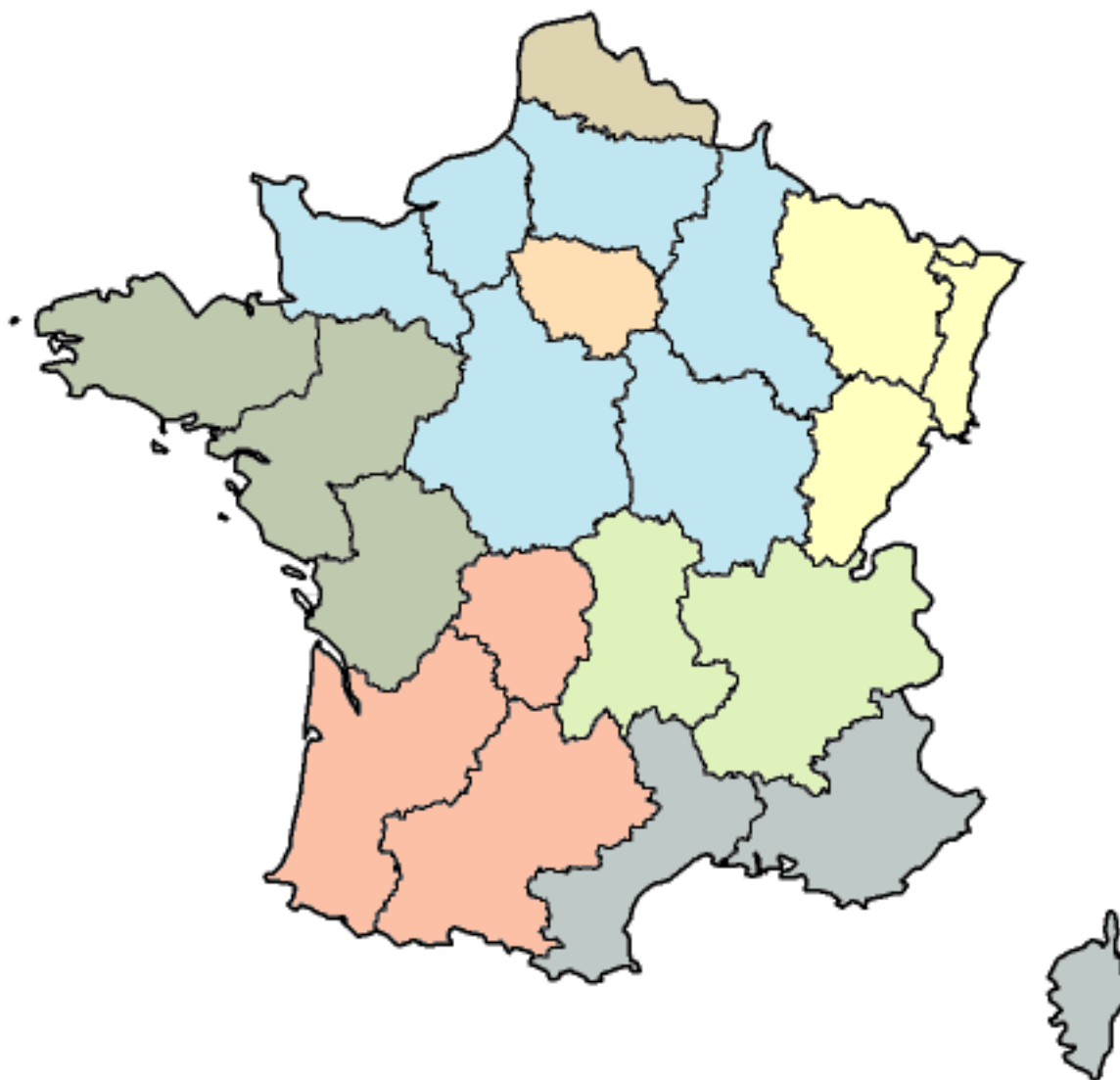
there income? There are numerous possible explanations for this discrepancy in spending patterns including higher savings rates in France and a greater propensity to spend money on leisure time activities. Nevertheless, these issues are beyond the scope of this paper and should be addressed at a later date.

In conclusion, homes are byproduct of government policy, culture, environment, and values. Yet, they also serve to mold the very things they reflect. As the 21st century proceeds, housing a country's population will be of critical concern because of its importance to a country's economic, social, and political stability and prosperity. It is this dynamism that will keep housing at the forefront of government policy decisions for the next century, as countries realize that the stakes are too great to ignore.

Figure 1: Political Map of France



Figure 2: Areas of Study and Territorial Development



* Legend for map is on the next page.

Color	Name		Corresponding Region(s)
	Région Parisienne	<i>Paris</i>	Île-de-France
	Bassin Parisien	<i>Paris Belt</i>	Bourgogne, Centre, Champagne-Ardenne, Basse & Haute-Normandie, Picardie
	Nord	<i>North</i>	Nord-Pas-de-Calais
	Est	<i>East</i>	Alsace, Franche-Comté, Lorraine
	Ouest	<i>West</i>	Bretagne, Pays de la Loire, Poitou-Charentes
	Sud-Ouest	<i>Southwest</i>	Aquitaine, Limousin, Midi-Pyrénées
	Centre-Est	<i>Mideast</i>	Auvergne, Rhône-Alpes
	Méditerranée	<i>Mediterranean</i>	Languedoc-Roussillon, Provence-Alpes-Côte d'Azur, Corse

Figure 3: Metropolitan French Cities with over 100,000 Inhabitants

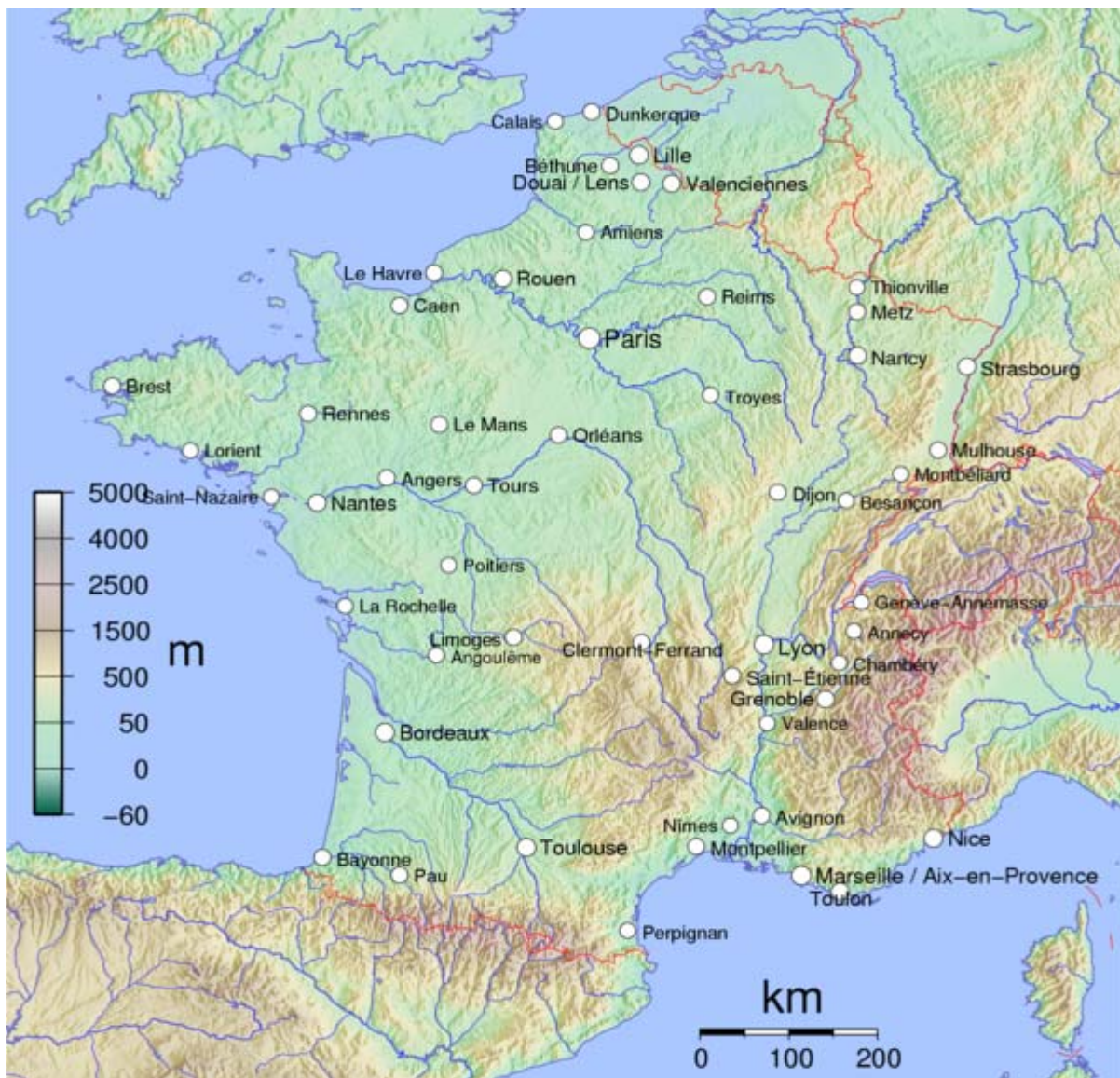


Figure 4: Aires urbaines “Urban Areas” in France

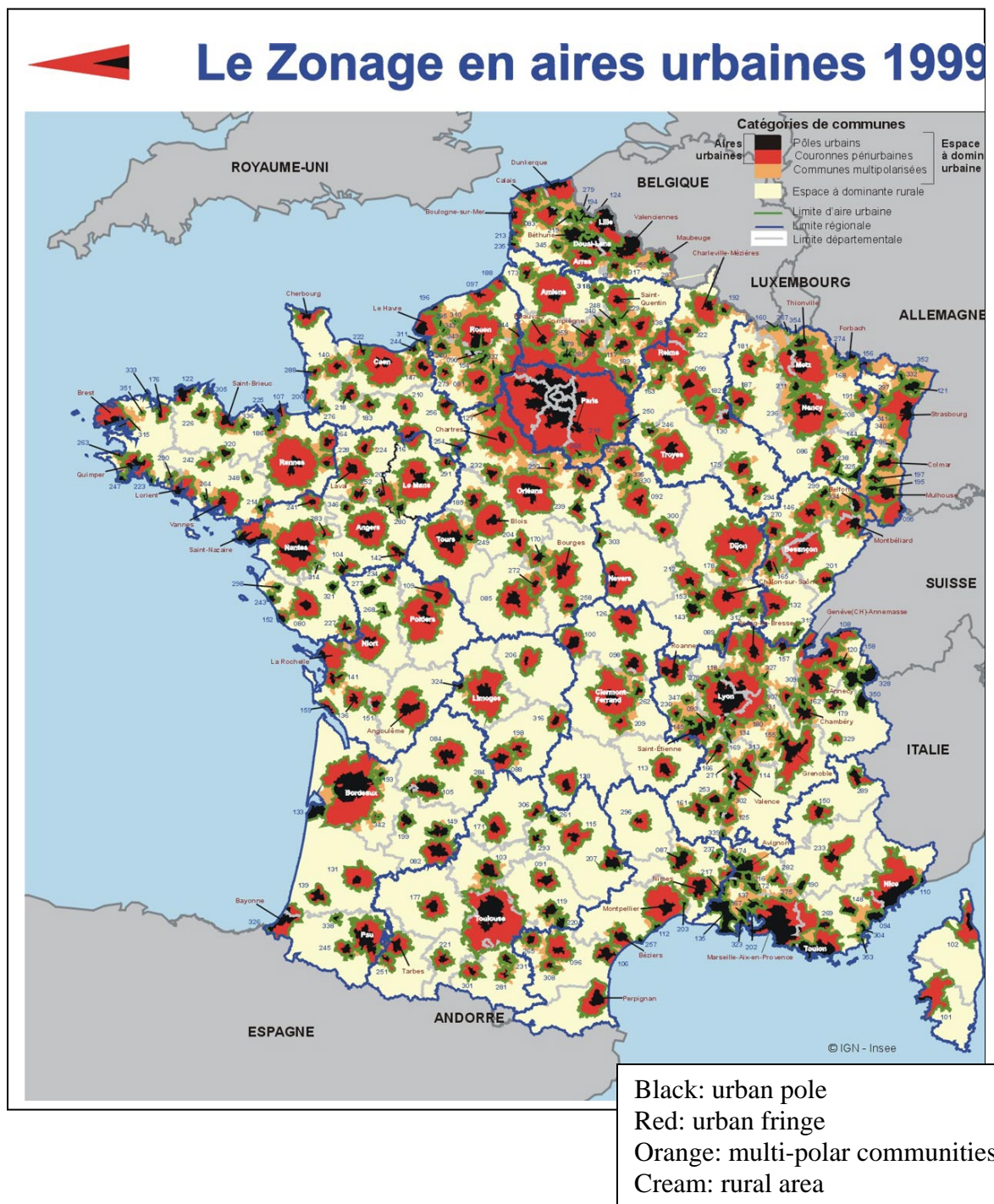
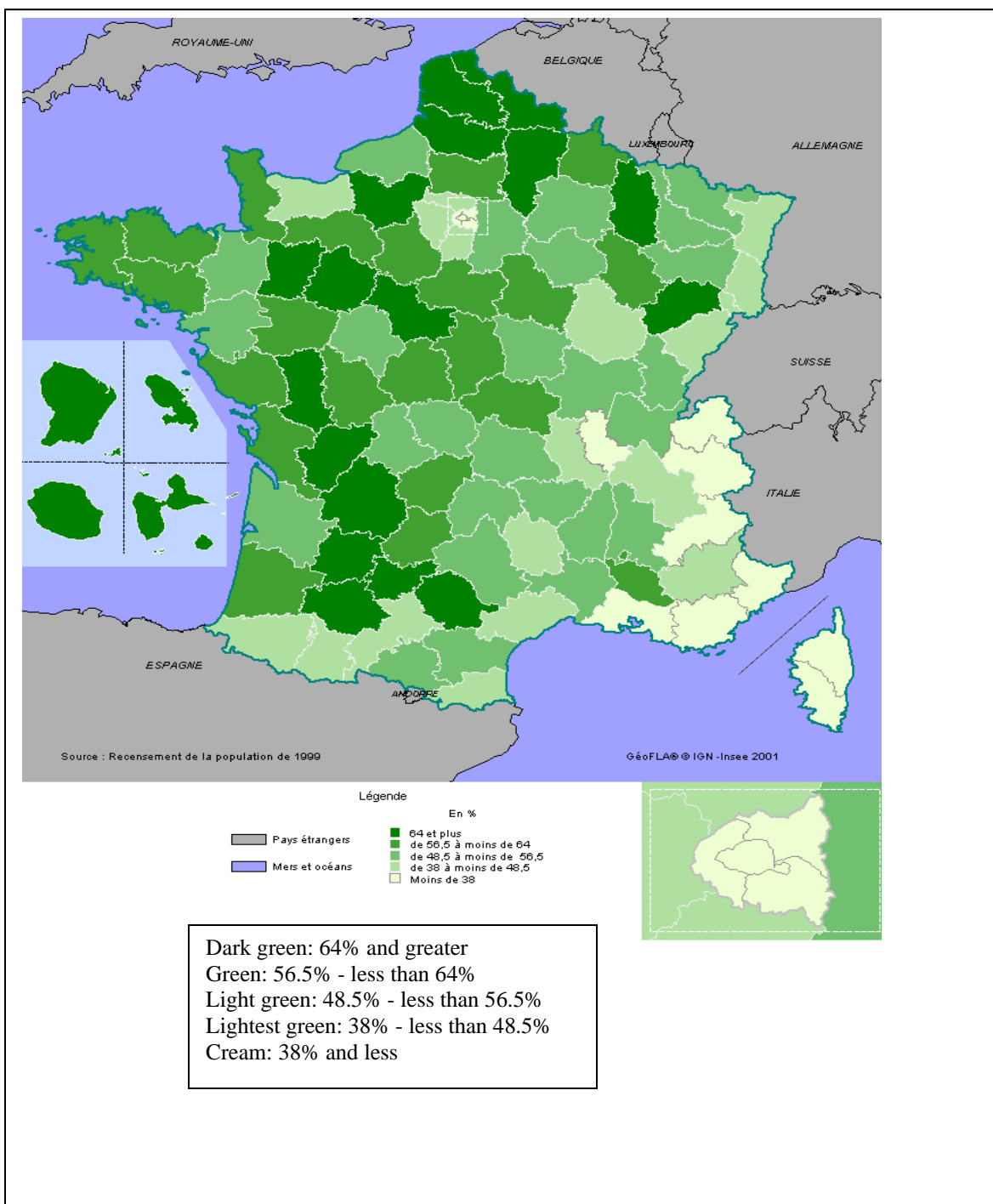


Figure 5: Distribution of Single-Family Houses in France by Department



Maps of the United States

Figure 6: Map of U.S. Census Bureau Divisions

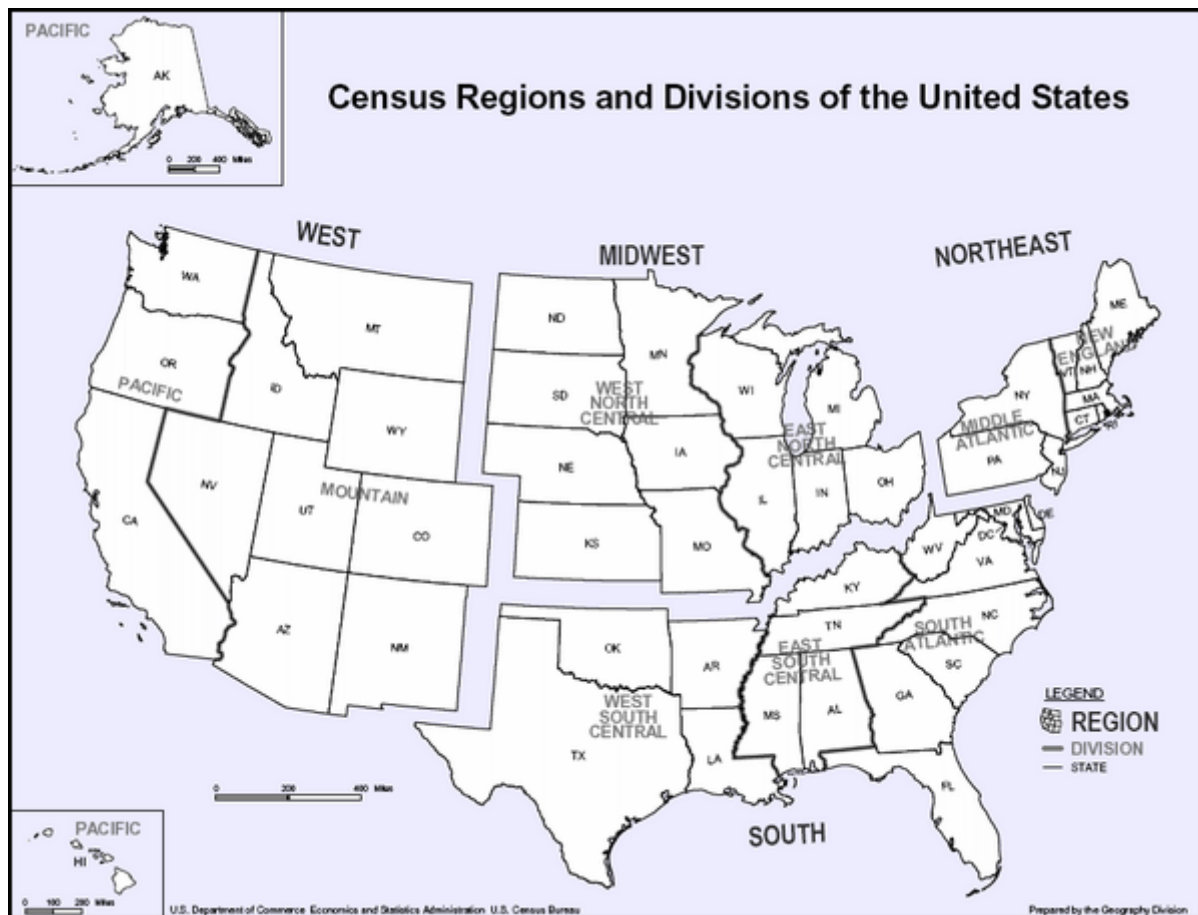
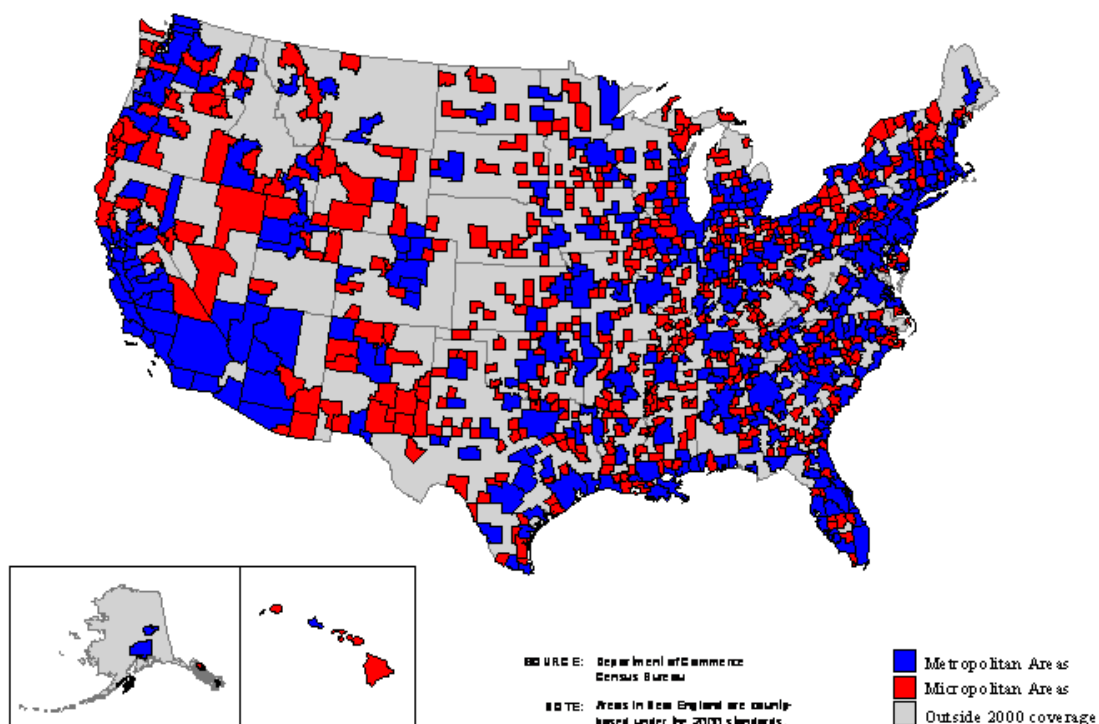


Figure 7: Metropolitan and Micropolitan Areas in the United States

(2000 Metropolitan and Micropolitan Area coverage = 1,785 counties)



Photographs

Figure 8: Typical Housing in France (Paris)



Figure 9: Typical Housing in the United States (Denver, Colorado)



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