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Understanding Local Politics and Affordable Housing

: In terms of Political Market Theory

지방 정치와 다세대 주택 관계에 관한 연구

: 정치 시장론을 중심으로

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목 차

This research investigates two important questions about local political structures that affect the promotion of affordable housing and about factors in community demographic status that determine the promotion of affordable housing. Regarding political market theory, local political institutions, community demand and the interaction between local politics and community demand are tested to find a mechanism and evidence for constructing affordable housing in a local community. Based on four published sources, 1) the FHDC, 2) the 2000 U.S. Census, 3) the 2003 survey of growth management and 4) the 2006

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survey of land use regulation conducted by the DeVoe Moore Center at Florida State University, this paper studies the mayor-council form of government and the percentage of low-income positively affect on the construction of affordable housing and percentage of home ownership negatively affect on construction of affordable housing. Through the interaction between local politics and community demand, the political market theory applies to local affordable housing construction, and the mediating role of political institutions is a core mechanism for explaining the construction of affordable housing. Finally, various governmental structures incorporating with a variety of political cognition and behavior contains the solution to the question of how much elected politicians reflect community voices and of how the construction of affordable housing is generated or operates in a local government.

□ Keywords: Political Market Theory, Local Politics, Affordable Housing, Land Use Regulation.

본 연구는 지방 정치 구조와 지역 단위의 인구 구성에 따른 저소득층 아파트 공급에 미치는 영향을 분석한다. 정치 시장론을 바탕으로 지역 저소득층 아파트 공급에 대한 원인을 분석하기 위해 지방 정치 제도, 지역단위 수요, 지방 정치와 지역 수요와의 상호작용을 중심으로 검증하였다. 성장관리 및 토지 규제 정책에 관련된 설문지, 플로리다 주택 보급 및 미국 센서스 데이터를 바탕으로 분석할 결과, 특정적 및 지역적 유권자의 요구에 잘 대응하는 정부 구조 및 저소득층 인구구조는 저소득층 아파트를 공급하는데 긍정적인 역할을 하며, 지역 단위의 주택 소유자들은 부정적인 영향을 미쳤다. 지역 정치 및 지역 요구의 상호작용 분석을 통하여, 정치시장론은 정치제도의 중재적 역할을 강조함으로써 저소득층 아파트 공급에 관한 연구의 이론적 틀을 잘 제시해 준다. 결론적으로, 정치적 성향 및 다양성을 잘 드러내는 정부 구조적 특성은 선출된 정치인들이 얼마만큼 지역 유권자의 목소리를 잘 반영하며, 지방 정부 내에서 저소득층 아파트 공급이 어떻게 이루어지는지를 잘 보여주는 핵심적 영향요인이다.

□ 주제어: 정치시장론, 지방 정치, 저소득층 주택, 토지 규제.

Ⅰ. Introduction

Land use management is increasingly salient for the control of economic development and environmental protection. However, the streams of concentrated economic development and environmental protection emphasize local community competition and cause socially negative externalities. With growth-oriented land use policies, municipalities have difficult controlling sustainable residential and commercial development and environmental conservation.

Many scholars in urban planning and the political economic research field argue that an obvious problematic dimension in local government is local housing construction. Since the pro-developmental and the environmental movement obstacles in providing high density development and emphasizing local competition, local governments institutionalize land use policy tools such as low density development, exclusionary zoning, impact fees and a high construction cost.

Regarding the above governmental policy tools, the probability of housing construction for low-income people is low, and then local governments experience the problem as a loss of community population. According to a statement of Department of Housing and Urban Development (2000) approximately 5.4 million households in the United States have an inadequate housing supply and a cost burden of more than half their income to buy a home. Furthermore, the National Neighborhood Coalition (2001) denoted that a low-income family has a net shortage in rental housing as most of affordable housing is already occupied by higher income people. Thus, local governments have to respond to the above problems through shared-growth as smart growth and they advocate comprehensive land use plans to improve public health, reduce social injustice, preserve social order, increase equality of opportunities and accommodate population growth" (Grigsby & Bourassa, 2003. 975).

Based on the above problematic social phenomenon, this research aims to expand literatures and investigate the factors influencing on affordable housing

construction in terms of research questions as follows: 1) what local political structures affect the promotion of affordable housing? and 2) which demographic factors in a community determine the promotion of affordable housing? To the extent of theoretical arguments, the authors, first, employs political market theory underpinning that the dynamics of local politics could bring the affordable housing issue into a policy agenda and promote a solution of community-based problems (Feiock, 2002. 366). Second, extent research provides advanced literature in the research field of affordable housing. Under theoretical statement that local politics interact with community and regional constituencies, this research emphasizes mediating role of local politics to address right conditions of affordable housing construction.

Ⅱ. Literature Review of Local Government and Affordable Housing

In a normal understanding, 'affordable' is a term with various meanings. It usually translates into the perspective of people who can buy within their income level or as "the expense of or having or sparing the price of" (Andrew, 1998). According to housing policy, affordable housing is defined as having the following ranges; 1) Extremely low income - under 30% of median, 2) very low income - 30 ~ 50 % of median and 3) low income - 50 ~ 80 % of median. But those affordable housing units with defined ranges make it difficult to apply to low income families at urban and suburban level due to difficulties in finding an applicable standardized housing in every community (Grigsby & Bourassa, 2003). Thus, the supply of affordable housing is located an important area of local residential policies in terms of governmental responsiveness where the authority of local government has been expanded. In contrast to past wisdom where issues of affordable housing were handled by non-profit and high levels of government such as Federal or State government,

in the current national debate on increasing affordable housing, many alternative policies have been offered as follows - 1) affordable housing should be provided by collaboration between government and the market, 2) affordable housing should be provided by civic organizations and 3) affordable housing should be provided by residential zoning regulations and local government intervention in the housing market.

However, local governments face much oppositions for constructing affordable housing. According to previous researches, various insights provides the reasons of the difficulties of providing affordable housings. Within land use management literatures, zoning regulation can be a barrier to provide affordable housings since it has a characteristics of exclusion (Knapp et al, 2007). In general, the function of zoning regulation secures land owner's property rights and values and is a production of government authority for growth control (Fischel, 2001). Even though local governments provide various land use policies tools such as inclusionary zoning, density bonus, mixed development, tax and financial incentives, etc to promote affordable housings, the exclusionary function of zoning is a preferred land use policies tool since community want to step away from affordable housing with several reasons. According to Obrinsky and Stein (2007), the oppositions about affordable housing as multifamily housing come from three dimension as follows - 1) citizen opposition as Not-In-My-Back-Yard politics, 2) governmental opposition as fiscal burden and 3) Urban sprawl as traffic congestion and crime. Down (1992), Stein (1996) and Turner, Popkin, and Cunningham (2000) argued that affordable housing brings negative externalities such as environmental degradation, undesirable dwelling structure and high density and crime, etc. "The movement of local elites, pro-environmental groups and homeowner associations speaking on a community's behalf causes the reduction of affordable housing and makes low-income families isolated and creates social discrimination (Pendall, 1999, Park, Lee & Kim, 2009. 44)." Furthermore, housing market mechanism explains the lack of affordable housing by which the developers provide housing construction with expectation of profit maximization. Then they are more likely to have a willingness to participate in

construction of expensive apartment or single family housing causing housing costs (Been, 2005).

Thus, many local governments try to solve many conflicts and provide right administrative practices for affordable housing construction. Local governments attempt to set up more comprehensive plans for residential development incorporated with multi-jurisdictional development. That is, the comprehensive plans minimize the conflicts of various interests among elected officials, developers, pro-environmental groups and the community. The reduced conflicts can increase opportunity which is "to insulate local decisions from opposing views or pressures, to reduce the social and environmental costs and externalities resulting from rapid growth, to preserve desirable community attributes and to ensure orderly and responsible development" (Feiock, 2002. 365).

On the other hand, some parts of the comprehensive plans, regarded as land use regulations, are problematic since those plans are based on strong commitment from local government. To ensure administrative practice, local governments could take the risk of a huge investment or long term capital subsidizes for affordable housing construction (Alchian and Demsetx, 1973). The reason is that the housing market is still struggling with increase housing costs and tends to step away from affordable housing without any promise of governmental incentives. Therefore, governmental willingness is an important consideration.

Hence, interplay among governments and community demands is important to address affordable housing construction. Even though previous researches provide insightful argument about the difficulties of affordable housing construction as following summary in Table 1, without understanding of interplay among local politics and community demands, it is difficult to argue administrative practice and political responsibility to generate housing policies, specifically affordable housing. Therefore, the authors employs political market theory to investigate mechanism of interaction between governmental supply and community demands.

<Table 1> Summary of Previous Affordable Housing Studies

Study of Barriers	Authors	Year	Subject
Zoning Regulation	Fischel	1985	Property rights and land use control
		2001	Historical function of zoning as exclusion
	Been	2005	Impact fee and housing affordability
	Knapp et al.	2007	Regulatory barrier in terms of zoning and developmental indicators
Negative Externalities	Down	1992	Difficulty of affordable housing construction such as environmental concerns, undesirable dwelling structure, etc
	Turner, Popkin, and Cunningham	2000	Affordable housing and neighborhood's health and mobility
	Nguyen	2005	Affordable housing determining property value
Citizen Opposition	Stein	1996	Citizen opposition and limitation of affordable housing policies
	Pendall	1999	NIMBY and housing construction
	Obrinsky and Stein	2007	Three dimensions of oppositions - 1) citizen, 2) government and 3) urban sprawl
	Park et al.	2009	Factors affecting housing affordability
	Tighe	2010	Negative public opinion and Affordable Housing

Ⅲ. Research Design

1. Theoretical Perspective of Political Market

The political market perspective applies the private market mechanism to the mechanism of policy choice and policy implementation. Similar to the

emphasis of property rights and individual incentive such as profit maximization in private markets, political market theory contributes to provide advanced literature and evidence about the mediating effects among governments and communities. That is, the political market theory helps to address the mechanism of supply and demand on public policy choice and to figure out interaction between local politics (e.g., supply-side dimension) and community (e.g., demand-side dimension).

Currently, many studies focus on the political equilibrium model corresponding with political market theory (Helsley, 2003) which examines whether political institutions have a significant role for pursuing majority rule and exchanging their willingness about certain policy decision and political incentives such as reelection and political careers. According to Clingermayer and Feiock (2001), local political institutions occupied core decision makers for land use regulation and behaved collectively based on political affiliation, ideology, median voters′ preference and executive structures. That is, political institutions as decision makers determine the extent of political compensation or incentives and the extent of reflection of community interests (Gerber & Phillips, 2003).

Based on the political market perspective, transaction cost politics (hereafter: TCP) provide more concrete literature. Contrasting to transaction cost economics (hereafter: TCE) which encompasses profit maximization on such transactions, TCP emphasizes a transaction between political gains and the cost of service production (Kwon, Lee & Feiock, 2010). That is, to secure political incentive and achieve a good career, elected officials have a strong willingness to exchange their police power and community priorities. On the other side, the electorate comprises an important role in TCP. Based on the assumption that individuals seek their benefits when such transactions take place and would turn their voice toward elected officials for reflecting what they need in the policy making process. In sum, regarding TCP, the elected officials inevitably interact with their constituencies, and then they rationally calculate political efficiency and loss of political legitimacy.

Regarding the TCP approach, in general, governmental executive structures

and local election types are influentially considered. In contrast to the previous argument about political institutions which reflect a minor role for land use regulation and urban growth, after the reformed movement in 20th century, the local political structure and elections are determining land use policy (Ostrom , 1999; Feiock, 2004). In particular, the mayor-council form of government (hereafter, MCFG) is addressed in that elected officials are more likely to concentrate on diffused and targeted community demands than council-manager form of government (hereafter, CMFG) and other types (Feiock et al., 2003). According to Feiock, Jeong and Kim (2003), in their study of "Credible Commitment and CMFG: Implications for Policy Instrument Choices," MCFG has a incentive to provide the narrow issue of policy and emphasizes demands of concentrated population contrasting to CMFG which has a incentive of long-term investment for economic development and increasing policy efficiency. That is, MCFG has more willingness about policy decisions for targeted populations in communities such as minority groups or low-income people in terms of political credit. Moreover, political cities with a mayor-council form of government have full executive power involving a veto over decisions of the city council, and implement the civic mercy service (Carr, 2007).

Likewise, local election type explains the political constraints and incentives. Regarding majoritarian politics, (Gerber & Philips, 2003), rather than the at-large type of election (hereafter, ALTE) which reflects the preferences of city-wide development and emphasizes of broader unit of political interests, by-district type of election (hereafter, BDTE) in a single district attempts to pursue an aggregated welfare function and is less constrained and has more political credit from the territorial constituencies. Specifically, the study of zoning regulation (Clingermayer, 1993. 730) indicates that elected officials through BDTE provide distributive politics which presumes that they have credible political power because geographically defined constituencies are more likely to have a willingness to enact a comprehensive plan involving residential zoning plans for minority/ socially isolated groups. That is, elected officials in a district-based election may be in the right place to focus on regional-based

residential development and are more likely to distribute the benefits of affordable housing construction to minority and low-income families.

For example, in current studies about local politics of inter-city competition, many scholars argue that local elected officials have a priority to provide economic development policies rather than providing redistributive policies as affordable housing. But, Basolo's study (2000), 'City Spending on Economic Development versus affordable housing; Does Inter-City Competition or Local Politics Drive Decisions?' provided insightful argument that strong MCFG has a willingness to promote affordable housing policies rather than economic development under theoretical arguments that MCFG is more likely to be determined by political responsiveness about community demands. And Hajnal and Trounstine (2010) expand Basolo's study that MCFG and BDTE are more likely to spend a budget for affordable housing than other developmental policies. Above two studies encompass that "MCFG and BDTE have a more concreted characteristics of pluralists which emphasize the diverse socio-economic background and governmental policy mirroring public preferences (Hajnal and Trounstine, 2010. 1133-1134)" and concentrate regional racial groups (i.e., minoirty, black and low income family). That is, above arguments are correlated with other studies in which CMFG and ALTE reduce governmental responsibility to create certain policies for minority or lower level of citizen groups and prefer developmental and environmental policies.

In local politics, residents' preferences are a more influential dimension (Lubell, 2003). Persson and Tabellini (2000. 20) argued that individual preference and action in a community influence policy choice with "voting, lobbying or other behaviors affecting political institutions." Within studies of housing policy and land use regulation, aggregated residents' preferences represent local community demands. In terms of political incentive and responsibility, local community demands determine political behavior and policy decisions. The interaction effect between political institution and the size and density of community interests implies that the socio-economic status such as percentage of white people and poverty is an influential predictor for

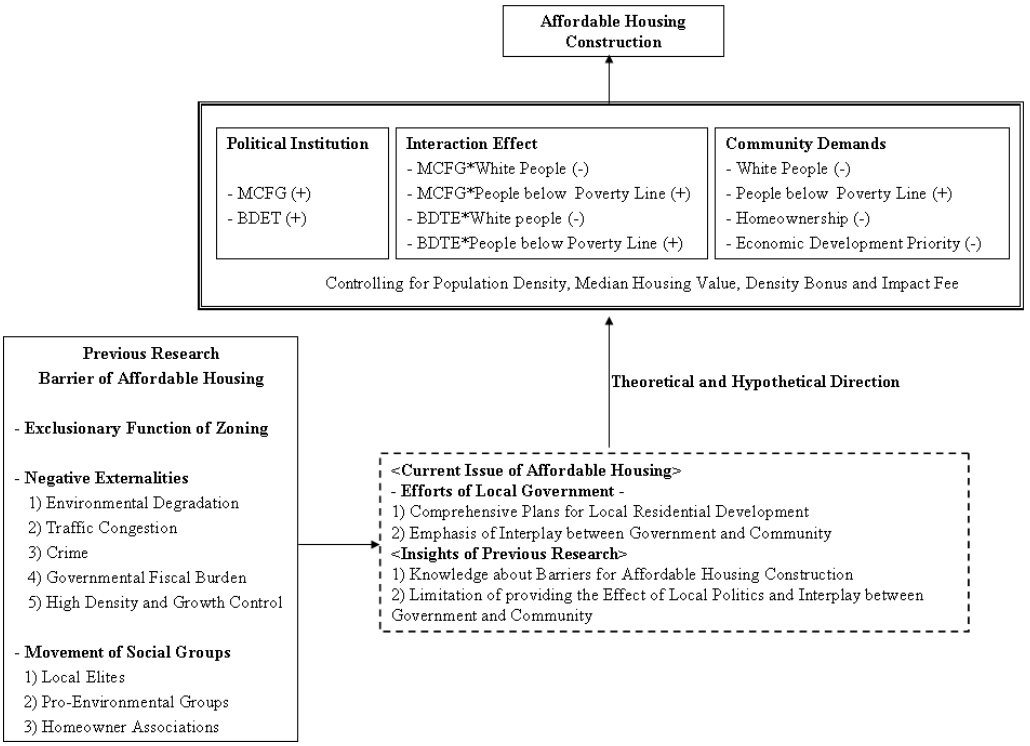
promoting affordable housing, and Donovan and Neiman (1992) denoted that highly-ranked people in socio-economic status want to be isolated by low-income people and vote to lower the cost of public policy instead of rising the cost of affordable housing construction.

Likewise, interest-based groups are expected to be political insiders. Within community demands, privately organized groups such as residential community associations (RCA) and homeowner associations (HOA) have discriminatory and undemocratic characteristics in policy decision within shadow government perspectives (Garreau, 1991; Helsley, 2003. 37). In houisng policy studies, especially, homeowener associations strongly intervened in residential development policies, and they had high interest in pro-environmental policy and in restricting affordable housing, which lowered their property values.

In sum, based on TCP, MCFG and BDTE have a high power incentive such as political gains and re-election beyond a high probability of interaction with a regional electorate rather than CMFG emphasizing managerial efficiency and ALTE producing a community-wide policy such as economic development and environment policy. Regarding a mediating role for political institutions, regional constituencies interplay with politicians to achieve their wishes, and then the local politics (i.e., MCFG and BDTE) reflect those wishes depending on the calculation between political gains and losses.

Finally, based on the above theoretical concerns, the following Figure 1 shows theoretical and hypothetical directions.

<Figure 1> Theoretical and Hypothetical Directions



2. Data Construction and Method

This research investigates factors affecting affordable housing construction based on the theory of the political market. Data used in this analysis are derived from four published sources; 1) FHDC[1], 2) 2000 U.S. Census, 3) 2003 survey of growth management and 4) 2006 survey of land use regulation at DeVoe Moore Center in Florida State University.

The dependent variable is units of multi-family housing[2] based on the 2005

1) FHDC (Florida Housing Data Clearinghouse). Section at "all data sets," Retrieved by http://flhousingdata.Shimberg.ufl.edu/datasets.htlm, 2008. April, 8th.

2) Burge, G & Ihlanfeldt, K., (2005) are used the "multi-family housing" as housing of low-income people (affordable housing) with "The Effects of Impact Fees on Multifamily Housing Construction" presented by 2005 Florida State University critical Issues Symposium, March, 4-5.

standard of FHDC. The dependent variable represents affordable housing for low-income people. The data of multi-family housing only includes an apartment occupying 2 families or more and does not include a single apartment or condominium (commercial) style apartment.

The independent variables are based on data from 2003, 2006 survey, Florida Statistical Abstract and U.S Census. The independent variables are categorized by political institutions and constituencies' demands. First, within the category of political institution, MCFG and BDTE are included. Second, within the category of constituencies, percentage of white, percentage of people below poverty line, percentage of homeownership and economic development priority are included. In general, the indicators for independent variables are measured by the following Table 2.

<Table 2> Measurement of Analytical Predictors

Predictors	Measurement
Dependent Variable	
- Construction of Affordable Housing	Ratio of Construction of Multi-Family Housing (Percentage of Construction of Multifamily Housing on Total housing Construction)
Independent Variables	
Political Institution	
- MCFG	Dummy Variable; MCFG 1, Other Forms of Government 0
- BDTE	Ratio Variable; Percentage of By-District Election
Interaction Effect	
- MCFG*Percentage of White	Ratio Variable; MCFG*Percentage of White
- MCFG*Percentage of People below Poverty Line	Ratio Variable; MCFG*Percentage of People below Poverty Line
- BDTE*Percentage of White	Ratio Variable; BDTE*Percentage of White
- BDTE*Percentage of People below Poverty Lin	Ratio Variable; BDTE*Percentage of People below Poverty Line
Community Demands	
- Percentage of White	Ratio Variable; Percentage of White
- Percentage of People below Poverty Line	Ratio Variable; Percentage of People below Poverty Line
- Homeownership	Ratio Variable; Percentage of People who have own house
- Economic Development Priority	Ordinal Scale Variable; From low priority 0 to high priority 20
Control Predictors	
- Population Density	Number of population at Square of Mile
- Median Housing Value	LN Median Housing Value ($)
- Density Bonus	Dummy Variable; Having Density Bonus 1, Not having 0
- Impact Fee	Dummy Variable; Having Impact Fee 1, Not having 0

However, an indicator of economic development priority is reconstructed by Principal Components Analysis (PCA). Since the question of economic development in the 2003 growth management survey consists of several individual groups, the reduction of variables method is necessary to get a better understanding of the interrelationships among variables and to overcome the multi-collinearity problem (Chatterjee et al., 1999). Table 3 shows the same component variation among individuals groups.

<Table 3> PCA about Economic Development Priority

Rotated Components Matrix for Economic Development	Component
- Supportive Group as Neighborhood Group	0.861
- Supportive Groups as Environmental Group	0.862
- Supportive Groups as Homeowner Association	0.870
Eigenvalue (Factor Analysis)	**2.45**
Reliability Statistics	Cronbach's Alpha
	0.890
	N of Items: 3

To construct control variables, median housing values, population density, density bonus and impact fees are measured based on the 2003 survey, the 2000 U.S Census and Florida Statistical Abstract. The impact fee and density bonus are land use policy tools and discourage/ encourage promotion of affordable housing. The study of impact fees presents a negative effect in promoting affordable housing due to increased housing price (Nelson, 1988). Density bonus is a recently useful tool for avoiding negative externality between residential development and conflicts and allows the developers to build the affordable housing from the exchange of financial incentive and fee exemption for construction (Schuetz et al, 2009). Furthermore, high property values in a neighborhood are a negative effect and population density may positively bring affordable housing for the existing population. General measurement of control variables is presented in Table 2.

To test for an overall multicollinerity problem, the authors investigate

correlation among independent and control variables and VIF (Variance Inflaction Factor) test since the statistical model cannot accurately estimate their pure effects from independent to dependent variable. Table 4 shows that there are no statistical violations in this analysis.

<Table 4> Test of Variance Inflation Factor

Variable	MCFG	BDTE	White People	People below Poverty Line
VIF	1.29	1.07	1.91	2.66
Variable	Homeownership	Median Housing Value	Impact Fee	Economic Development Priority
VIF	1.30	1.34	1.27	1.08
Variable	Density Bonus	Population Density	Mean VIF: 1.50	
VIF	1.19	1.91		

Finally, based on the nature of the dependent variable in this analysis as a ratio of multifamily housing construction, firstly, the authors investigate the normality assumption, and it presents a quite normal distribution. Secondly, the authors estimate it using Ordinary Least Square (e.g., multiple regression) due to more accurate estimates of the effects of the independent variables by subtracting out the side-effects of the other predictors between a single dependent variable and explanatory variables (Afifi et al., 2004).

Ⅳ. Empirical Findings

The results of this analysis are based on cities from the state of Florida. Regarding descriptive Statistics, 302 cities have multifamily housings accommodating 2 or more families at the range of about -7 to -1.6% which was from 0% to 20%. Since the range of 0% to 20% in the orignal affordable housing data violated the assumption of normality, the authors used natural log statistics for the ratio of multifamily housing construction. On average,

0.3% of housings are multifamily housings using local housing construction. For the structure of political institutions, about 30% of cities are formed by MCFG and about 14% of cities have by-district elections consisting of council members. For the demographic status, about 72% of population are white people in local cities and about 14% of population included under the poverty level. Over 59% of households have their own houses, and groups concerned about the environment, economic development and neighborhood property values have a high priority for general economic development policies. The descriptive statistics are presented in Table 5.

<Table 5> Statistical Description

Variable	Observation	Means	Std. Dev	Min	Max
Dependent Variable					
- Affordable Housing Construction (LN)	302	-3.94	1.13	-6.9	-1.57
Independent Variables					
〈Political Institution〉					
- MCFG	334	0.302	0.03	0	1
- BDTE	342	0.139	0.32	0	1
〈Interaction Effect〉					
- MCFG*Percentage of White	342	20.58	34.99	0	99.73
- MCFG*Percentage of People below Poverty Line	342	4.86	8.95	0	43.28
- BDTE*Percentage of White	338	9.44	23.08	0	99
- BDTE*Percentage of People below Poverty Line	338	2.13	5.83	0	39.9
〈Community Demands〉					
- Percentage of White	338	71.74	22.81	2	99.73
- Percentage of People below Poverty Line	338	14.4	8.51	0	43.3
- Percentage of Homeownership	338	59.31	13.06	23.7	90.6
- Economic Development Priority	239	9.53	2.42	3	15
Control Variable					
- Population Density	338	2281.83	2512.88	1	20267
- Median Housing Value (LN)	338	11.4	0.62	9.31	13.81
- Density Bonus	304	0.16	0.37	0	1
- Impact Fees	304	0.48	0.5	0	1

The two analytical results of multiple regression with a robust standard error which examines the factors affecting construction of multifamily housing are presented at Table 5 providing coefficients, standardized coefficients (e.g., Beta coefficients), numbers of observations, and R-square and heteroskedasticity tests. To evaluate the mediating effects between political institutions and community demands, the authors test two regressions: 1) a model without interaction effects and 2) a model with interaction effects.

As shown below in Table 6, 207 cities are observed finally in two models, and, overall the model fits are applicable to provide statistical findings. Through a heteroskedasticity test, the OLS assumption is not violated by the

<Table 6> Statistical Result for Multifamily Housing Construction

Variable	Without Interaction Effect		With Interaction Effect	
	Coefficient (Standardized)	Robust Std. Err	Coefficient (Standarized)	Robust Std, Err
Political Institution				
- MCFG	-0.148(-0.055)	0.202	**3.15(1.17)****	1.27
- BDTE	-0.196(-0.059)	-0.167	0.09(0.02)	1.18
Interaction Effect				
- MCFG*Percentage of White	-	-	**-0.03(-0.86)****	0.01
- MCFG*Percentage of People below Poverty Line	-	-	**-0.07(-0.51)****	0.03
- BDTE*Percentage of White	-	-	-0.001(-0.02)	0.01
- BDTE*Percentage of People belw Poverty Line	-	-	- 0.14(-0.08)	0.02
Community Demand				
- Percentage of White People	0.001(0.021)	0.005	0.009(0.188)	0.005
- Percentage of People below Poverty Line	0.027(0.202)	0.018	**0.059(0.447)****	0.02
- Percentage of Homeownership	**(-0.025)(-0.307)****	0.008	**-0.02(-0.244)****	0.007
- Economic Development Priority	-0.043(-0.096)	0.029	-0.042(-0.096)	0.028
Control Variables				
- Population Density	2.93e-06(0.006)	0.00005	0.00001(0.03)	0.00004
- Median Housing Value (LN)	-1.53e-06(-0.099)	1.45e-06	- 0.004(-0.001)	0.225
- Density Bonus	0.001(0.0004)	0.184	-0.005(-0.002)	0.186
- Impact Fee	-0.118(-0.054)	0.141	-0.163(-0.074)	0.148
Number of Observation	207		207	
F(14, 192)	5.98		5.37	
Prob > F	0.0000		0.0000	
R-squared	0.1955		0.2237	
Root MSE	1.0088		1.0012	
Breusch-Pagan/ Cook-Weisberg Test for Heteroskedasticity	**chi2(1) = 1.09 Prob > chi2 = 0.2962**		**chi2(1) = 0.46 Prob > chi2 = 0.4959**	

〈Notes. **〈0.05; Each regression is based on robust standard errors, clustered by cities〉

fact that the chi-square of Breusch-Pagan/ Cook-Weisberg Test is small. It means that the variance of the error term is constant which results in homoscedasticity of the analytical model.

There are several statistically significant findings. The findings are contributed by pure effects (MCFG, the percentage of people below the poverty line and the percentage of home ownership) and interaction effects (between MCFG and the percentage of white and between MCFG and the percentage of people below the poverty line). According to theoretical and hypothetical expectations, the MCFG , the percentage of people below the poverty line, the percentage of home ownership and interaction effect between MCFG and the percentage of whites, all have a positive affect on multifamily housing construction. However, in contrast to the hypothetical expectation, the interaction effect between MCFG and the percentage of people below the poverty line negatively influences multifamily housing construction. Moreover, the pure effects of BDTE, the percentage of white and the economic development priority and interaction effect among the BDTE, the percentage of white and the percentage of people below the poverty line are not statistically significant.

More specifically, when comparing model 'without interaction' with model 'with interaction', the statistical results show how much influential effect of interaction between political institutions and community demand (i.e., community demography status) is more influential dimension to argue for mediating role of political institutions. That is, the change of significance among political institutions, whites and the poverty level from model without interaction to model with interaction implies that political willingness reflects community demands, and that elected officials exchange their willingness and political gains. The evidence for the above statements is that MCFG is a more reasonable predictor for addressing political influences, and then it may imply that MCFG has a willingness to reflect on community preferences and actively interacts with their latent constituencies in the field of multifamily housing construction.

Lastly, among the statistically significant predictors, the MCFG has a larger

effect on the construction of multifamily housing, and then the MCFG interacted with the percentage of whites and low-income people are relatively large effect rather than other predictors.

Ⅴ. Implications

This empirical study tests factors affecting the construction of affordable housing in terms of political market perspectives. Although housing is nested by the Federal and State governmental institutions, there is obvious evidence that local politics and authority are related to housing policy, especially affordable housing, and mediating housing policies between local government and community provides a variation of affordable housing construction. Thus, the political market approach has a strong theoretical implication.

Above all, the construction of affordable housing has to be explained by the political willingness and community preferences provided (Kang, 2005). As currently emphasized, affordable housing for reducing social and community conflicts and governmental actions are more importantly considered. Especially, the interaction between local politics and community demands well addresses the mechanism about variation that different structures of local governments have a different production of affordable housing.

Regarding the negative externality of affordable housing such as the reduction of neighborhood property values and increasing social conflicts by NIMBYISM, local governments inevitably construct affordable housing under the conditions that a community either has a strong priority for affordable housing or a local government recognizes housing problems for low-income family. Political market theory implies the above mechanism. Political institutions actively reflect community voices and rationally conceive their incentives. Especially, in the governmental structure of MCFG, a strong mayor has the willingness to provide short-term investment in the target population and is more likely to exchange political credits and construction of affordable

housing. That is, theoretical evidence of a high power incentive in TCP affects local affordable housing construction.

However, with many low-income people in a community, the politics of MCFG act differently. Rather than providing direct construction of affordable housing, the mayor and council members attempt to promote economic development. It means that if there is high cost of affordable housing construction or if there are local zoning limitations, government budgets, infrastructure, etc, MCFG tries to use economic development policies for opening job opportunities, increasing wages, and attracting private capital for new industries.

On the other hand, BDTE is not considered an influential predictor. Even though BDTE has more priorities regarding regional, narrowly-conceived populations as low-income people and statistically positive effects, there are other implications for BDTE. Within a majority voting system, a BDTE in which one commissioner has one vote, it may be difficult to log-roll commissioners to create an agenda for affordable housing in their community. Rather than BDTE, at-large election type may promote the agenda for affordable housings since commissioners elected by at-large are more in favor of incorporating city-wide policies.

Based on the above statements, there are several implications for other countries that are concerned about providing affordable housing. Even though much literature for affordable housing construction in other countries emphasizes the cost of housing construction, re-arrangement of infrastructure in new residential development, competition of the private housing market, the limitations of governmental intervention in housing construction, etc, political willingness is one of the potential solutions. Specifically, this research provides insights to affordable housing construction in South Korea. The policy issue of affordable housing construction in South Korea came from political solutions for increasing housing affordability and homeowner for low income family and lower level of social class in 1989. However, the affordable housing policies have struggled with negative externalities which are similar with U.S. experiences. This means that the residential area occupied by affordable

housings is becoming a slum. The isolation of geographical proximity, increased crime, traffic congestion, disconnected communication among neighborhoods, etc are evidences about difficulty of providing affordable housing in South Korea. Even though government of South Korea attempts to solve above problems through public participation at housing policies decision making process, inter-sectoral corporation (i.e., governing body, private and non-private sector) and financial incentives toward future residents, the construction of affordable housing in South Korea is facing much oppositions as Not-In-My-Back-Yard politics. This research may provide certain conditions about promotion of affordable housing, even though political and governmental structure between U.S. and South Korea differ. First, strong political responsibility is necessary. As a characteristic of MCFG structure, strong political leadership in municipality can maximize the willingness about constructing affordable housing based on regional and geographical needs. Second, the interaction between local politics and community is emphasized. Since the affordable housings are more determined by socio-economic status and income level in community, local politics should understand community's income levels and local population structure and then provide many opportunities to listen community's voices.

Regarding political market theory, the practical implications are provided through political transactions. Within this study, the authors have argued that systematically explained government structures such as MCFG, CMFG, BDTE and ALTE incorporated with a variation of political behaviors imply that governmental structures can step forward for affordable housing. Furthermore, interactions among political institutions and community demographical status attempt to get answers about question regarding how much elected officials reflect their communities' voices and how housing policy is generated or operates in local government.

Lastly, this study has limitations about measurement. Since the predictor of economic development priority in the collected data is based on the response of city planners and officials, there is some difficulty to evaluate and apply it as evidence. Furthermore, it is de facto that the current forms of government

have various structures. But, since it is difficult to figure out the exact form of government among MCFG, CMFG and mixed forms between MCFG and CMFG, the predictor of MCFG is coded as dummy. In future studies, it will be necessary to accurately categorize the forms of government.

References

Afifi, Abdelmonem., Virginia A. Clark., and Susanne May(2004). "*Computer-Aided Multivariate Analysis.*" Boca raton: Chapman & Hall/CRC.

Alchian, Armen A. and Harold Demsetz(1973). Production, Information Costs and Economic Organization. *The American Economic Reivew* 62: 777-795.

Alston, L. J.(1996). *Empirical work in Institutional Economics. In Empirical Studies in Institutional Change*, editied by ". L, J. Alston, T. Eggertsson, and D. C. North.

Andrew, N. O. (1998). *Report of regional approaches to affordable housing: Meeting America's Housing Needs.*

Basolo, Victoria.(2000). City Spending on Economic Development versus Affordable Housing: Does Inter-City Competition or Local Politics Drive Decisions? Journal of Urban Affairs 22(3): 317-332.

Been, Vicki.(2005). "Impact Fees and Housing Affordability." *A Journal of Policy Development and Research* 8(1): 139-185.

Brueckner, J.L. and M.S. Joo.(1991). Voting with capitalization. *Regional Science and Urban Economics* 21: 453-467.

Burge, G., and Ihlanfeldt, K.(2005). The effects of impact fees on multifamily housing construction presented by the 2005 Florida State University Critical Issues Symposium, 2000. March 4-5.

Carr, James H.(2007). "Responding to the Foreclosure Crisis." *Housing Policy Debate* 18(4): 837-60.

Chatterjee, C.H., Hadi, A. S. and Price, B.(1999). *Regression Analysis by Example*, 3rd ed. Wiley, New York.

Clingermayer, James C.(1993). Distributive Politics, Ward Representation, and the Spread of Zoning. *Public Choice* 77(4): 725-738.

Clingermayer, James. C. and Richard C. Feiock.(2001). *Institutional Constraints and Local Policy Choices: An Exploration of Local Governance*. Albany, NY: State University of New York Press.

Department of Housing and Urban Development (2000); *The State of the Cities 2000: Mega-forces shaping the Future of America;s Cities*, HUD.

Donovan, Todd. And Max. Neiman.(1992). Community Social Status, Suburban

Growth, and Local Government Restrictions on Residential Development. *Urban Affairs Review* 28: 323-336.

Down, Anthony.(1992). Creating more Affordable Housing. *Journal of Housing* 49(4): 174-183.

Edlin, A.S. and C. Shannon.(1998). Strict single crossing and the strict Spence-Mirrleses condition: a comment on monotone comparative statics. *Econometrica* 66: 1471-1425.

Fischel, W.A. (2001). *An Economic History of Zoning and a Cure for its Exclusionary Effects.* retrieved by http://www.dartmouth.edu/~wfischel/Papers/02-03.pdf (Dec 6th. 2010).

_____(1999). *Zoning and land use regulation.* JEL. Presented by local governance team in Florida State University.

_____(1985). *The Economics of Zoning Laws: A Property Rights Approach to American Land Use Controls*. Baltimore, MD: Johns Hopkins University Press.

Feiock, Richard C.(2004). Politics, Institutions and Local Land-Use Regulation. *Urban Studies* 41(2): 363-375.

_____.(2003). Politics, Governance, and the Complexity of Local Land Use Regulation. *Urban Studies* 41(2): 363-77

_____.(2002). A Quasi-Market Framework for Local Economic Development Competition. *Journal of Urban Affairs* 24(2): 123-142.

Frant, Howard.(1996). High-Powered and Low-Powered Incentives in the Public Sector. *Journal of Public Administration and Theory* 6: 365-381.

Garreau, J.(1991). *Edge Cities: Life on the New Frontier*. New York: Doubleday.

Gerber, E.R. and J.H. Phillips.(2003). *Land use policy: Institutional design and the responsiveness of representative government*. Paper presented at the Midwest Political Science Association Annual Meeting.

Grigsby, W.G and S. C. Bourassa.(2003). Trying to Understand Low-Income Housing Subsides: Lessons from the United States. *Urban Studies* 40: 973-992.

Galster, G., Tatian, P., and Pettit, K.(2004). Supportive Housing and Neighborhood Property Value Externalities. *Land Economics* 80: 33-54.

Hajnal, Zoltan L. and Jessica Trounstine.(2010). Who or What Governs?: The Effects of Economics, Politics, Institutions, and Needs on Local Spending.

American Politics Research 38(6): 1130-1163.

Helsley, R. W.(2003). *Urban Political Economics*. Presented by Local Governance Team in Florida State Univeristy (DeVoe Moore Center)

Hotelling, H.(1933). Analysis of a complex of statistical variables into principal components. *Journal of Educational Psychology* 24: 417-41

Kang, I. S.(2005). *Politics, Institutions, and the Implementation of Growth Management Policy in Florida Cities*. Resented by the Annual Meeting of the Midwest Political Science Association, Chicago, Illinois.

Knapp, Gerrit, Stuart Meck, Terry Moore and Robert Parker.(2007). Do We Know Regulatory Barriers When We See Them? An Exploration Using Zoning and Development Indicators. *Housing Policy Debate* 18(4): 711-749.

Kwon, Sung-Wook, Lee In-Won and Richard C. Feiock.(2010). Transaction Cost Politics and Local Service Production. *International Review of Public Administration* 14(3): 37-52.

Lewis, Paul and Max Neiman.(2002). *Cities under Pressure: Local Growth Controls and Residential Development Policy*. San Francisco: Public Policy Institute of California.

Lubell, M., Richard Feiock and Edgar Ramirez.(2005). Political Institutions and Conservation by Local Governments. *Urban Affairs Review* 40(6): 706-729..

Lubell, Mark.(2003). Environmental Governance, Belief System, and Perceived Policy Effectiveness. *Political Research Quarterly* 56(3): 309-323.

National Neighborhood Coalition (2001). *Affordable Housing and Smart Growth.*

Nelson, A. C.(1988). Development impact fees: introduction. *Journal of the American Planning Association* 54: 3-6.

Nguyen, Mai Thi(2005). Does Affordable Housing Detrimentally Affect Property Values? A Review of the Literature. *Journal of Planning Literature* 20(1): 15-26.

North, Douglass. C.(1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press. New York, NY.

Obrinsky, Mark and Debra Stein.(2007). *Overcoming Opposition to Multifamily Rental Housing*. Report of National Multifamily Housing Council.

Ostrom, Elinor.(1999). *Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework*. In Theories of the Policy Process, edited by Paul A. Sabatier, pp. 35-72.

O'Sullivan, Arthur.(1996). *Urban Economics. 3rd. Ed.* Boston, MA:Irwin/McGraw-Hill.l

Park, Sang-Chul, Se-Jin Lee and Tae-Jin Kim. 2009. Factors Affecting Housing Affordability in U.S. Local Government: Hierarchical Linear Modeling regarding the Political Economic Perspective. *The Korea Spatial Planning Review* 61: 41-60.

Pendall, R.(1999). Opposition to Housing: NIMBY and Beyond. *Urban Affairs Review* 35(1): 112-136.

Persson, T. and G. Tabellini.(2000). *Political Economics*. Cambridge, The MIT Press.

Schneider, Mark, and Paul Teske.(1993). The Antigrowth Entrepreneur: Challenging the Equilibrium of the Growth Machine. *The Journal of Politics* 55(3): 720-736.

Schuetz, Jenny., Rachel Meltzer and Vicki Been.(2009). 31 Flavors of Inclusionary Zoning: Comparing Policies from San Francisco, Washington DC, and Suburban Boston. *Journal of the American Planning Association* 75(4): 441-456.

Shepsle, Nornneth.(1979). Institutional Arrangements and Equilibrium in Multidimensional Voting Models. *American Journal of Political Science*, 23: 27-59.

Stein, Debra.(1996). The Ethics of NIMBYism. *Journal of Housing and Community Development* 53: 34-35.

Tiebout, Charles.(1956). A Pure Theory of Local Expenditure. *Journal of Political Economic* 64: 416-24.

Tighe, J. Rosie (2010). Public Opinion and Affordable Housing: A Review of the Literature. *Journal of Planning Literature* 25(1): 3-17.

Turner, Mary A., Susan Popkin and Mary Cunningham.(2000). *Section 8 Mobility and Neighborhood Health.* Washington, DC: Urban Institute.

Westhoff, F.(1979). Policy inferences from community choice models: a caution. *Journal of Urban Economics* 6: 535-549.

Wildasin, D.E.(1979). Local public goods, property values, and local public choice. *Journal of Urban Economics* 6: 521-534.

Wildasin, D.E. and J.D. Wilson.(1996). Imperfect mobility and local government behavior in an overlapping generation model. *Journal of Public Economics* 60: 177-198.