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THE STRUCTURE OF COMMUNITY POLITICS

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CONFLICT OVER RULES:
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by

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ABSTRACT

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Federalism is a complex political economic structure that influences private and public resource allocation. The role of federalism has not been well stated because of the underdevelopment of federalism theory. This dissertation provides a coherent theory of federalism with applications to economic development policy choices and growth rates. The dissertation assesses these topics in Chapter Two by reviewing the relevant normative social choice theories of federal structures. Chapter Three describes the historical development of metropolitan competition under state home rule induced fragmentation. Chapter Four provides an direct analysis of community tax price competition. Chapter Five analyzes the latest state efforts to compete with differentiated development policy packages. Chapter Six links economic growth rates to organizational activity within state political systems. Thus I begin with a structural framework, explain the competitive behavior observable within this framework, and conclude with some analysis of long term consequences for economic performance.

FOR MY MOTHER

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CHAPTER ONE

A FEDERAL SYSTEM EQUILIBRIUM

Federalism is a complex political economic structure that influences private and public resource allocation. The central role of federalism has not been well stated because of the underdevelopment of federalism theory. This dissertation provides a coherent theory of federalism with applications to specific areas of subnational policy concern, namely, economic development policy choices and economic growth rates.

By focusing upon a single constitutional arrangement within a political system we are able to understand the causal relationships between preferences, institutions, and policy outcomes. This somewhat traditional approach is justifiable because, according to William Riker, "we have already learned from the (impossibility results) that we cannot expect to find equilibria of preferences, but we may be able to find equilibria generated from a given subset of preferences by particular institutions." (Riker:20) This is an effective research strategy for explaining and predicting complex empirical variables like economic development policy choices and growth rates. The value of theoretical understanding for the interpretation of complex real world phenomena cannot be overstated.

From a traditional institutional perspective federalism assigns rights and responsibilities to various individual and incorporated agents within a political system. The patterns of relationships between the national, state, and local government are ordered by federalism. Federalism as a structure is an important component to the general checks and balances adopted by the framers of the United States Constitution.

From a modern political economy perspective, the mere existence of any political rule affects resource allocation. Thus, procedural biases play a determinate role by influencing both the political processes and outcomes. Federalism is no exception to the general idea that structure biases outcomes; procedural biases create strategic incentives to manipulate agendas and misrepresent preferences.

A federal structure induces strategic political competition by defining vertical and horizontal intergovernmental relationships. To summarize the basic theory of federalism presented in the disseration, consider the following logic:

i) a federal structure induced equilibrium exists in an community system, if consumer-voters preferences meet standard conditions and if the community system acts in a multi-dimensional local public good space in such a way that each dimension is under the jurisdiction of a particular community; this implies

ii) homogeneity of preferences for rules (like a federal structure) can generate stable patterns of group choices in the absence of preference homogeneity over (economic development policy) outcomes;

iii) procedural stability generates strategic incentives to either a) manipulate rules to generate outcomes or b) misrepresent preferences for the rule;

iv) structures influence the direction and magnitude of strategic intergovermental competition;

v) vertical intergovernmental relationships involving the nation to city, nation to state, or state to city agents generally tend to be a) non-competitive and b) asymmetric with respect to intergovernmental bargaining positions;

vi) state to city relationships tend to be integrative in the sense that states legally dominate cities. States regulate the degree of local competition by controlling a) the entry of new communities and b) the boundary decisions of existing communities through constitutional home rule provisions;

vii) horizontal intergovernmental relationships tend to by highly competitive. Competition is induced by the degree of institutional fragmentation existing under federal structural arrangments;

viii) state to state relationships focus upon non-price competition in the form of policy differentiation; currently, states utilize economic development policy packages in their efforts to differentiate the local public goods and services available to firms. By differentiating the set of government incentives confronting firms, states hope to gain a strategically competitive advantage over other states;

ix) city to city relationships involve tax-price competition. Local competition for resources affects fiscal (taxes and subsidies) and regulatory (zoning) policy outcomes. Local competition is regulated by the entry barriers states utilize to incorporate and maintain community jurisdictional boundaries.

Whenever states fail to actively regulate community entry, local competition within metropolitan areas involves fierce tax price competition for resources. Perfect competition among communities is not theoretically because 1) some services have economies of scale and 2) land resources are limited in metropolitan areas and 3) the right to provide local public services within a geographical area conveys a monopoly position to the agent(s) responsible for supplying the public good(s) in question. Even though perfect tax-price competition is an unrealizble goal, some have argued that more structural fragmentation induced competition is desirable.

Given the imperfect nature of local intergovernmental competition, this implies states should incorporate as many community jurisdictions within resource constraints. There are clearly some efficieny gains to be had on the demand-side by increasing community competition. But there is an upper bound to these efficiency gains from increasing the number and scope of state and local polities.

The Los Angeles and Detroit areas are probably two metropolitan polities which have come close to exhausting competition induced efficiency gains. My belief is that producer efficiency for those local services exhibiting a high degree of publicness is not well served by metropolitan tax price competition. There are some gains in consumer efficiency that generate production inefficiences.

Allocative efficiency requires the correct level of community competition. I believe that destructive competition is likely to occur at fairly low levels of intergovernmental competition.

The causal relationships between the degree of publicness, institutional fragmentation, and commmunity competition and private and public sector resource allocations are crucial for understanding subnational economic problems. Yet these important variables have not been precisely modeled and formalized within a structural theory of federal political economy.

The dissertation begins these questions in Chapter Two by reviewing the relevant normative social choice theories of federal structures and then proceeds to interpret the descriptive political science literature within a positive game theoretic framework. Chapter Three describes the historical development of metropolitan competition under state home rule induced fragmentation. Chapter Four provides an direct analysis of community tax price competition. Chapter Five analyzes the ~~latest~~ state efforts to compete with differentiated development policy packages. And Chapter Six links economic growth rates to organizational activity within state political systems. Thus I begin with a structural framework, explain the competitive behavior observable within this framework, and conclude with some analysis of long term consequences for economic performance.

To conclude, this dissertation follows the basic logic of the proceeding argument. Means effect ends. Since the ends are biased by the means utilized, agents attempt to influence the adoption, maintainence, and reform of institutional means. The specific institution in question (federalism) has been undervalued as a means for stabilizing macro political system outcomes and micro policy outputs. A federal political system influences public and private resource allocation by setting the limits of intergovernmental competition resulting from the formal division of power between national and subnational agents.

CHAPTER TWO

A REVIEW OF FEDERALISM THEORY

I. Introduction

Federal System Stability

Under a federal system, national government power is dominant but not dictatorial. National officials can use rules, regulations, and resource transfers to influence state and local policies. National authorities can dominate state and local policy processes and outcomes within federal structural arrangements, but they cannot generally impose decisions upon subnational governments.

State and local officials have numerous opportunities to check and balance national authority. Community officials can utilize their independent electoral "soap-boxes" to articulate policy demands running counter to national priorities and to support policies at variance with other communities. Community governments have some political independence under a federal structure, which is limited by the degree of community tax base competition and the scarcity of transfer resources.

A federal structure provides diffuse opportunities for influencing policy processes and outcomes. Individual political entrepreneur's and coalitions organize around the policy opportunities created by a federal structure. Federalism thus provides both a mechanism for generating policy outcomes as well as a means for revealing individual preferences.

The stability of a federal system depends upon the stability of policy processes and outcomes under a federal structure. The dynamic stability of a federal system depends upon the continual adjustment and formation of coalitions of minorities. Stable intergovernmental relationships, between national and subnational governments, reinforce existing policy outcomes and maintain incremental policy processes. Complex federal relationships enable government to allocate services and to redistribute resources. In the dynamic context, a federal system functions as a stable policy adjustment process. Federalism thus influences both short run policy outcomes and long run policy processes.

Community Policy Outcomes in a Federal System

Federalism influences community policy outcomes by providing multiple electoral and appointive political forums. By furnishing numerous electoral opportunities, it becomes unlikely that either a single global majority will exist over all forums or that a single local faction will be able to dominate all forums at any point in time. Federalism creates opportunities for local factions and broad based coalitions of minorities to form.

Short run policy outcomes may clearly reflect the importance of certain political leaders and their followers, but the long run stability of a federal system does not depend upon the stability of a single forum or the existence of a global majority. Long run system stability depends upon the constancy of intergovernmental relationships and the relative dominance of factions across all forums. If a unique global faction exists, then that faction can enforce its preferred policies comes across forums, no matter how diffuse the policy making process. But if global factions do not generally exist, and if inter-governmental relationships exhibit consistency, then policy processes and outcomes will tend to be stable under a federal structure.

The instability of a majority rule unitary government, attempting to provide services and to even out resources, was well understood by state politicians designing the United States Constitution.[1] Instead of a unitary parliamentary government, they designed a structure separating and dividing authority which has checked and balanced extreme possibilities of liberal democracy.

The mere existence of a federal structure influences the exercize of power by elective officials, voters, and organized groups in the policy process. Yet by checking the possibility of a global dictator, federalism regulates the ability of elective officials, voters, and organized groups to unilaterally implement preferred policy alternatives. The purpose of dividing power with a federal structure is to create a stable and complex political system, while reducing the possibility of radical policy outcome changes or tyrannical policy processes. Thus a federal division of power generates short term policy outcomes and stabilizes long term decision-making processes.[2]

Why a Federal Structure?

State and local governments are increasingly designing policies to attract resources. Faced with declining tax bases and employment opportunities, communities are competing to provide jobs and increase their tax bases. At the same time, for a variety of reasons, the availability of intergovernmental grants is decreasing. Those remaining transfer programs are also facing cutbacks. Intergovernmental relationships in general (and resource transfers in particular) have become overloaded, as community (factor) demands have outstripped national resource transfer supplies. Community competition to expand own resources is increasing at the same time transfer resources are decreasing.

Increasing community competition and

decreasing transfer resources both limit subnational policy processes and outcomes. Community officials appear more limited in their ability to deliver services and to engage in redistributional activity. Community service needs are growing, while community and transfer resources are declining. With the decline in scope and size of intergovernmental grants, transfer mechanisms are becoming less important. The remaining transfer mechanism appear overloaded as need exceeds resources.

With these limitations upon community policies and overloaded intergovernmental relationships, we might ask whether a federal structure is worth keeping? William Riker posed this important question concerning the existence of a federal structure over two decades ago. [3] To answer Riker's challenge to federalism theory, this chapter provides a theoretical account of the premises for evaluating a federal structure.

Many researchers generally assert that structural reforms are neccessary to improve policy performance. Yet "proposals for reform of an institution are likely to yield unintended consequences if their architects do not consider how people condition their decisions on those institutions."[4] If the purpose of intergovernmental relationships is to provide a stable division of power, federal structural reforms to improve policy outcome performance will redistribute power between national and subnational leaders, constituencies, and groups. Some reforms may have unintended destabilizing effects.

The theme of this chapter is thus to answer Riker's challenge by examining the basic components of a federal structure and their consequences for empirical policy performance. The chapter links deductive structural axioms with empirical policy hypotheses in order to provide a federalism theory reflective of modern policy problems. We do so by first describing three reasonable conditions to impose on a federal structure these represent criteria for evaluating intergovernmental relationships. Upon examinination we find these conditions logically inconsistent. Federal structural incoherence is a consequence design intergovernmental relationships simultaneously satisfying all three conditions.

The second section provides two linkages. First, we argue that structural incoherence determines both the structural constaints limiting communities and the organizational complexity overloading intergovernmental relationships. Second, the community limitation and intergovernmental overload hypothesis statistically explain observable policy performance measures.[5] These empirical hypotheses are explanations of the same federal policy performance failures. The community limitation hypothesis explains policy failure at the micro-federal system level, while the intergovernmental overload hypothesis is consistent with macro federal system failure. Both hypotheses account for the current state of incoherence describing modern federalism theory and policy performance.

After summarizing the various lines of federalism theory into analytical conditions, and linking them to present empirical hypotheses, we conclude by synthesizing the results into a federal theory reflective of modern structural processes and policy outcomes.

II. A Useful Federalism Theorem

An Overview of Model

There are three basic conditions or postulates which have been advanced to justify a federal structure. However research indicates that no federal structure or set of intergovernmental relations exists jointly satisfying these three conditions.[6]

The first axiom is citizen sovereignty.[7] When a collective choice environment contains a locational component, citizen sovereignty or free individual locational choice has been hypothesized to generate an optimal allocation of resources. Under this allocation, the domain of individual preferences is restricted, because a system of diverse communities forms which is internally homogeneous.[8] The number of diverse individual preference combinations equals the number of communities which have formed in equilibrium.[9]

The second condition is local autonomy.[10] Local autonomy refers to the sovereignty of the community population. Local autonomy implies a system of communities have a right to local self government. Or, put another way, community populations have local jurisdictional responsibility spanning a widely differentiated set of public goods and services. Without some degree of local autonomy, a federal structure cannot exist.

The third and final condition relates to administrative efficiency.[11] A optimal federal structure requires administrative efficiency, where community population boundaries and the span of local jurisdictional responsibilities coincide. Sometimes called perfect correspondence, othertimes named fiscal equilivalence, the administrative efficiency criteria covers both process and outcome waste.

Postulate 1: Citizen Sovereignty

Arrow himself postulated the non-imposition or citizen sovereignty condition. This condition has sometimes been referred to as non-coercive choice.[12] If individuals, as a group, prefer something, then the given collective consumption bundle should be provided. Individual choices are somehow meaningful because their preferences over alternative consumption bundles are translated directly into actual provision.

In a locational, territorial, or geographical context, the non-imposition condition refers to non-coercive individual location decisions. These nonimposed or free individual location decisions are aggregated into collective group decisions within a federal system. In fact, the two reinforce each other: a federal system protects the right to free location choice and non-imposed collective location choices are probably only possible under a federal structure.

The locational exit signals of firms and individuals greatly limit community power, to the degree firms and households are mobile. Free locational adjustment processes, such as "voting-with-feet", result in a general locational equilibrium.[13] In this general locational equilibrium, the domain of individual preferences is restricted. Individuals sort themselves into internally homogeneous communities.

The Tiebout "voting-with-feet" hypothesis was first articulated in "A Pure Theory of Local Expenditures." [14] In the Tiebout model, location choices are revealed preferences for public goods. Tiebout wrote, "if consumer voters are full mobile, the appropriate local governments (will) form, whose revenue and expenditure patterns are set from consumer voters (collective) location choice."[15] Unobservable consumer preferences for public goods are revealed through search process. Once all consumers reach their ideal location, the group choice is efficient.

Because social choice problems often revolve around public goods provision, the Tiebout model offers both a social choice process and a public goods allocation. James Buchanan and Charles Goetz summarize the public goods solution by stating that "Tiebout demonstrates that so long as local governmental units are appropriately assigned the task of providing certain public goods and services, and so long as individuals retain the freedom of personal migration choice among jurisdictions, there are efficiency generating (social choice) processes at work, despite the publicness of the goods provided."[16] If individual location choices result in a stably efficient group allocation choice, then it would appear that exit signalling is a superior mechanism to majoritarian voice mechanisms.

Tiebout claims that the "solution, like a general equilibrium solution for a private spatial economy, is the best that can be obtained given preferences and resource endowments."[17] In a very recent article, this conjecture is proven false because "Tiebout's notion of an equilibrium does not have the nice properties of general competitive equilibrium, except under very restrictive assumptions."[18] These assumptions include community officials following profit maximization goals, perfect intergovernmental competition, and usage of exclusionary devices. The Tiebout voting with feet process solves the free rider problem, if local public goods are essentially treated as non-divisable private goods.

In some respects, the Tiebout model of federalism is a more interesting solution to the voter's paradox. The Tiebout process resolves the voter's paradox by creating a federated community system. The partitioning rules inherent in a federal structure are neccessary to enforce a Tiebout outcome. For instance, Fisch argues that a Tiebout outcome is stable when exclusionary rules a utilized to regulate resource entry and exit.[19]

Zoning, incorporation, annexation, and charter rules all function as community level exclusionary devices for regulating destabilizing resource mobility. These exclusionary devices enforce internal community public goods allocations, while reducing the destabilizing effects of mobile resources on the community system.

Exclusionary devices structurally impose stability on the community system as a whole. Tiebout suggests "while the solution may not be perfect because of institutional rigidities, this does not invalidate the importance" of exit options as a social choice process.[20] Exclusionary devices create incentives for individual preference revelation, and they generate policy outcomes by fragmenting metropolitan polities.

The Tiebout "voting with feet process achieves pareto optimality by grouping individuals together in polities of homogeneous tastes; in the extreme, it satisfies Gerald Kramer's severe condition for consistent majority rule decisions, that all individuals (within a community) have identical indifference maps, through the imposition of a silent unanimity rule."[21] Free location choice thus generates a public goods allocation when a federal structure exists to impose a system of communities on populations, and then enforce the subsequent collective location decision.

A federated community system influences individual location decisions. Revealed location preferences are affected by metropolitan fragmentation. A simple model shows how individual's reveal preferences for wealthier communities.[22] Fragmentation creates strategic preference revelation incentives because individual's do not face perfectly competitive community systems.

Metropolitan fragmentation also influences local public goods outcomes. Community residents may strategically utilize exclusionary devices to create entry or exit barriers, in order to maintain a community's tax base. Fragmentation also generates a degree of community competition for resources. Community competition in metropolitan areas often involves a large number of cities; in these situations, private property and income are shielded from redistributional activity by intercommunity competition.

The intimate connection between free location choice (for both firms and households), low redistributional activity, private property rights, and federal structural arrangements--in the form of exclusionary devices--cannot be denied. Collective decisions resulting from free individual location choice are unstable without a federal structure comprised of zoning, incorporation, annexation, and other rules enforcing local public good outcomes. Conversely, a the existence of a federal structure protects and insures property rights and citizen sovereignty or freedom to choose locations on an individual basis.

Postulate 2: Local Autonomy

Federal structures also allow for a degree of local jurisdictional autonomy, or autonomy in the decision making process. Autonomy is defined specifically with respect to partitions of (homogeneous) individual (preferences) into communities matched with partitions of public good packages into local jurisdictions. When individuals have a limited right to self government, then the span of community decision making autonomy matches their jurisdictional control.

Most rights are delegated constitutionally or through some legislative process. For instance, cities are granted local autonomy by state constitutional provisions covering home rule, and by legislative statutes governing local charters. The right to local self government is not a natural or constitutionally protected right; it is a plenary or property right.

The legal research discussing the differences between property and natural rights is quite voluminous.[23] Suffice to say, local charters began as titles to land and natural resources by the King of England. Local charters remain plenary rights. Indeed, Kenneth Shepsle "conceives of the association between (legislative) committees and jurisdictions as a kind of property right."[24]

The right to tax resources within a community's boundaries is a similar collective property right. Without tax resources, the postulate of local autonomy is essentially meaningless. Yet the "point of origin nature of (local) revenue generation gives municipalities a property right to all the resources they can squeeze into their corporate boundaries, while similarly benefiting all those cities that can squeeze out of their boundaries those groups of individuals who put a strain on municipal resources through their redistributional demands."[25] The right to tax assessed value, or point of origin revenue generation, is a central part of local autonomy. The postulate of local autonomy implies a granting of property rights as a precondition for decentralized public good allocative decisions.

Suppose local public goods are treated like a standard (consumer-consumer) externality problem. Then an optimal pattern of community property rights solves the joint externality problem. The standard solution, due to Coase, states that "if costless negotiation is possible, rights are well specified, and redistribution does not affect marginal values, then (1) the allocation of resources will be identical, whatever the allocation lf legal (charter) rights, and (2) the allocation will be efficient so there is no problem of externality." [26] In other words, if local autonomy is well defined under a federal structure, then the local public goods problem is solved.

Furthermore "proposition two holds even if redistribution does affect marginal values; and, proposition one holds even if there are transaction costs, provided these are independent of the pattern of legal liability."[27] The Coase theorem provides an interesting justification for local autonomy, such as home rule, within a federal structure. A federal structure thus also serves to allocate local public goods and to (re)distribute private and public sector resources.

Private property is shielded from redistributional activity at the local level by point of origin revenue generation. Public sector resources are limited by those contained within community boundaries, and by the degree of competition for mobile resources at the local level. Local autonomy is a two edged sword. On one side resource limitations are placed on community jurisdictions redistributional activity (therefore protecting private property from eminant domain), at the same time local jurisdictions are guaranteed an independent tax base.

Since states determine home rule charters (or community rights) they determine the degree of local autonomy. If transaction costs are zero, and resources are mobile, then Coase model poses an interesting alternative solution to the local public goods revelation problem. In the Tiebout model, individual location decisions ultimately generate a system of local community jurisdictions allocating public goods. But by treating local public goods as externalities, we find that the individual public good demand revelation problem is less significant than federal structural arrangements governing the rights and responsibilities of community jurisdictions.

Postulate 3: Administrative Efficiency

The final desirable criterion for a federal structure concerns generating an optimal pattern of communities and jurisdictions.[28] Recall that communities represent population groupings, or partitions of the total population by preferences; also remember that jurisdictions are partitions of the local public policies into individual and packages of commodities. The principle of perfect correspondence defines exactly what we mean by administrative efficiency.

In a classic work, Fiscal Federalism, Wallace Oates argued "the optimal form of federal government to provide the set of public goods would be one in which there exists a level of government for each subset of the population over which the consumption of a public good is defined; this would be sufficient to internalize the benefits from the provision of each good; such a federal structure of government, in which the jurisdiction that determines the level of provision of each set of public goods includes precisely the set of individuals who consume the good, I shall call a case of perfect correspondence in the provision of public goods."[29]

Given partitions of total population into communities and the public policy space into jurisdiction, perfect correspondence can be defined one of two ways. Perfect correspondence exists if the set of communities and the set of jurisdictions are homeomorphic or if a function (like a federal intergovernmental relation) exists which is a one to one mapping of communities onto jurisdictions. Perfect correspondence, as a criterion for administrative efficiency, thus requires 1) partitions into communities and jurisdictions plus 2) the existence of a federal structure relating populations to policy responsibilities.

The perfect correspondence definition of administrative efficiency is derived from George Stigler's argument that "representative government works best the closer the government is to its consumer-voters, and that subsets of people within a country have the right to vote for themselves different kinds and amounts of public services."[30] This idea of a right to local self government or free right to select a location is intrinsic to the argument for an efficient decentralized federal structure.

An optimal federal structure must satisfy some criteria for administrative efficiency. I have picked the perfect correspondence principle because it subsumes the other two arguments for postulates one and two. Citizen sovereignty and local autonomy both result in an optimal federal structure. Yet they do not describe a precise institutional design condition. Perfect correspondence describes both the constituent elements of a federal system (ie. partitioning rules defining communities and jurisdictions), and the fundamental intergovernmental relationship(s) governing a federal structure.

A Federal Structural Dilemma

No federal structure exists satisfying postulates one, two, and three.[31] The logic underlying the federal dilemma is related to Sen's famous liberal paradox.[32] The method of proof is quite similar.

Batra and Pattanaik place four conditions upon a federal structure. First, they presume a restricted profile of individual preference orderings. If consumers sort themselves out into communities, this condition is easily satisfied. Second, they postulate the existence of a set of community welfare functions. Third, they presume a set of partitions dividing the population and policies. Fourth, the perfect correspondence principle is augmented with a variation of a unanimity (or weak pareto) rule. They proceed to show that no social decision function, in this case a federal structure, can simultaneously satisfy all four conditions.

But how does this result imply the three postulates? First, free location choice implies a restricted set of individual preferences. Of course, preferences could be restricted for reasons besides the Tiebout hypothesis. But the citizen sovereignty condition is more general than the axiom utilized by Batra and Pattanaik, (and it was also used by Arrow); yet in the location context it generates a similar equilibrium profile restriction. Postulate one is more general (and I would argue more normatively desirable) than the axiom necessary for proof.

Second, local autonomy or the decisiveness of community jurisdictions is directly embodied in Batra and Pattanaik's minimal federal structure. Sen minimal liberalism condition grants individual's autonomy or right to privacy in on some issues. The existence community welfare functions stems from a degree of local autonomy, where identifiable preference groupings partitions themselves into communities.

Finally, if we require perfect correspondence of community jurisdictions, we essentially guarantee the existence of intra-community jurisdiction unanimity. Since individuals have freely sorted themselves into most preferred communities, and local jurisdictional rights and responsibilities have been appropriately assigned, the expectation is that public good allocations will satisfy strong or weak pareto rules. Thus, no federal structure jointly satisfies the following desirable normative criteria: citizen sovereignty, local autonomy, and administrative efficiency.

Clearly, there are other desirable criteria which might be applied to a federal structure. The three postulates justifying a federal structure presented here are only necessary, but not sufficient, conditions justifying a federal structure. But these postulates represent various lines of reasoning (and research) supporting a federal system of government.

Furthermore, they are often utilized implicitely or explicitely as evaluative criteria for recommending federal structural reforms. Taken together, these evaluative criteria are inconsistent for judging the relative merits of a federal institutional design. To summarize, I believe, it is when we adopt structural reforms designed to implement these various postulates, that we generate the incoherence, inconsistency, constraints, and overload which are empirical facts describing modern federalism. If we strive for an ideal (or optimal) federal structure, by satisfying these three principles through structural reform, then our federal structure must necessarily fall short of the posited goals, by virtue of their conflictual nature.

III. Empirical Hypotheses

In this next section, I review the recent empirical hypotheses describing modern federalism. The purpose is to show the linkage between the analytical result presented above, and to illustrate the connection between the intergovernmental overload and community limitations hypotheses. Not only are these empirical hypotheses two heads of the same coin, but they are also plausible consequences from striving to achieve the preceeding normative standards.

Community Policy Limitations

Community politics is limited politics.[34] A federal structure induces stable community policy choices by limiting the number of alternative strategies and payoffs available to subnational (state and local) governments and their constituents.

To quote Paul Peterson, "local politics is not like national politics; by comparison with national politics local politics is most limited; there are crucial kinds of public policies that (subnational) governments cannot execute; they cannot make war or peace; they cannot issue passports or forbid outsiders from entering their territory; they cannot issue currency, and they cannot regulate imports or erect tariff walls."[34] Community politics is limited because a federal structure limits community decision making power (policy) with intergovernmental relationships (transfers).

Community policy limitations stem from these formal legal constraints. The United States federal structure limits formal community power. Some policies are simply prohibited at the community level, or they are explicitely assigned to national authorities. American federalism structurally constrains community decision processes.

The federal structure limits the policy goals community government's pursue. National fiscal resources are 1) scarce and 2) distributed by intergovernmental transfers. Federalism limits community policy performance and output levels by prioritizing grant monies. Grant monies are strategically utilized to create local policy incentives.

The Structural Constraints Hypothesis

The federal structure constrains policy alternatives to a feasible set of alternatives. National officials utilize rules and resources to define a feasible set of policy priorities. A federal structure can thus be used as both a carrot (grant monies) and stick (constitutional provisions) to implement national policy goals. National officials determine the contextual domain of community policy strategies and the range of payoffs associated with various policy choices.

The structural constraints hypothesis can easily be phrased in game theoretic terms. Both rule and resource limitations structurally constrain community policy choices. "The federal structure operates to limit choices" 1) by imposing some community choices, 2) by limiting the range of alternative policies, and 3) by determining the incentives facing community decision makers. To summarize, note that 1) rules of a game can be used to impose outcomes, 2) a limited strategy space occurs when relevent alternatives are separated from irrelevant alternatives and when feasible alternatives are defined, and 3) incentives define payoffs associated with choices.[35] A federalism structurally constrains community policy choices in the player space, the strategy space, and the payoff space.[36]

The player space refers to the number of actors, and the rules of game governing those actors. If players are not sovereign, then an outcome may be imposed or forced. A player's (or community official's) choice is limited the sense that a rule may simply force the selection of a given policy alternative or outcome. A forced choice situation is a game where a solution is imposed upon the players.[37] By limiting the player space, or violating the principle of citizen sovereignty, the rules of game constrain player choices.

Policy alternatives are constrained by limiting strategy spaces. Transfer resources constrain policy choices by influencing the number, quality, quantity, and mixture of local public goods and services. Some policies running counter to national policy goals may be deemed irrelevant, by reducing the relative amount of national resources committed to providing a local public good. In other circumstances, declining national resources may reduce the amount of grant monies available for all local public goods, such that many policy alternatives are rendered infeasible. National resources constrain community policy strategies by creating incentives and limiting the feasible alternatives.

When local resources are scarce, communities compete for available transfer resources. Decreasing own and transfer resources have lead to increasing community competition. Declining local revenue bases, declining intergovernmental grant monies, and increasing local public good demands, increase the degree of community competition. High community competition implies low or constrained community power. Community power, or policy making autonomy, is clearly limited by payoffs.

Thus, federalism defines the sovereignty of the player space, the strategy space, and the payoff space. National legal powers force or impose some community policy choices on subnational officials. The scope of community policy agenda is clearly shaped by federal regulations and intergovernmental relations. Finally, the relative incentives for various policies is greatly influenced by intergovernmental transfers or grant monies.

A Synthesis of Empirical Federal Hypotheses

Community political leaders make choices within a federal structure. This structure constrains community power. Structural constraints exist in the form of rule and resource limitations. These limitations are enforced through (increasingly overloaded) intergovernmental relationships. Intergovernmental relationships constrain players' sovereignty, the feasible alternative policy strategies, and the payoffs associated with policy outcomes. Each intergovernmental constraint serves to structurally limit community policy choices.

At the micro level of the federal system, we find community power limitations. The federal structure induces these limitations through rule and resource constraints. These constraints create and provide for restrictive community policy latitude. Furthermore, constraints are increasingly used by national officials to induce community competition. When community competition increases, national officials are best able to promote their goals by strategically utilizing intergovernmental grant monies.

At the macro level of the federal system, we find that these intergovernmental relationships are increasingly overloaded or strained. Community competition for transfer resources, and the strategic usage of transfer resources as incentives, have lead to more complex intergovernmental relationships. The previous hypothesis works from the bottem of the federal ladder up, by describing micro-community policy incentives. We now turn the organizational complexity hypothesis, which works from the top to the bottem of the federal structure, by focusing on the complex organizational processes required for distributing transfer resources to communities.

The Intergovernmental Overload Hypothesis

Federalism is a complex organizational process. Some authors maintain that there is "overwhelming evidence to suggest that the current intergovernmental (transfer) system suffers from an overload," as indicated by the increasing state and local dependency on federal aid, increasing spending mandates, and increasing pre-emption of local autonomy through federal regulatory activity.[38] Proponents of the intergovernmental overload hypothesis include David Walker, George Hale, Mariam Leif Palley, and other research published by the Advisory Commission on Intergovernmental Relations.[39]

The Advisory Commission on Intergovernmental Relations proposes four areas of federal system failure. They are administrative failures such as red tape preventing efficient implementation, demand failures such as those affecting citizen participation and evaluation of programs, and political failures such as those involving local autonomy and accountability. The Commission concludes that a federal system failure is occuring which requires structural reforms designed to rationalize intergovernmental relationships, in such a way as to reduce the incoherence and inconsistency resulting in system overload.

Of course, a rationalizing structural reform to satisfy these conditions is not possible, because no federal institutional design exists to correct these system failures. Intergovernmental relationships, and in particular resource transfers, have become increasingly complex as communities have become more dependent upon transfer resources. And as own community resources decline and service demands increase, competition for these decreasing transfer resources is increasing. Thus pent up resource demands are overloading the transfer system.

Increasing micro-community competition results in macro intergovernmental transfer system overload. Macro federal system failure is a consequence of stably increasing community competition, increasing public goods demands at all levels of our society, and decreasing public sector resources at the same time the size and scope of government is increasing. Yet organizational process models of federalism tend to argue that this failing system has no discernable decision making structure. If our federal system is unhinged, and the federal system needs reform, then it is by no means clear how failures can be corrected.

The Failure of Organizational (Systems) Theory

Modern federal theory has not progressed beyond Morten Grodzins organizational process model of intergovernmental relationships.[40] Paul Peterson suggests, "however apt and appealing the marble cake analogy may be, comparing federalism to a structureless piece of pastry is in the end non-theory; the metaphor suggests flux, change, and complexity when the purpose of theory is to identify simplicity, pattern, and order."[41] At the core, a federal system is a stable distribution of legal power among independent governments.

Organizational process models fail to provide a coherent theory federalism. "The essence of federalism is a stable (institutional) relationship among structures of government."[42] Even though empirical intergovernmental relationships "have been characterized as a (complex) process of sharing and exchange," the federal structure itself has changed far more gradually.[43]

Given the system failure and general structural irrationality conveyed by organizational theory, one would expect to find a highly unstable disorderly system. Clearly, we find structural changes taking place as the Supreme Court reinterprets the Constitutional division of powers. As an organizational process, the federal structure imposes stability because the "modern federal theory has replaced the older (dual federalism) concept that each level of government must pursue the functions appropriate to it with the flexible idea that the national government can and does exercixe any function performed by state and local government."[44]

Modern complex federalism places an emphasis upon overlapping, sharing, and concurrent exercises of functional policy responsibility. The organizational complexity of modern intergovernmental relationships is evidence for the successful adaption of our federal system to emergent problems.

Organizational theory fails to provide guidelines for interpreting how federalism should work. If federalism must satisfy administrative efficiency, local autonomy, and citizen sovereignty, then all federal system must fail. The failures in our federal system today are that there is too much destructive competition among state and local communities, and too much strategic usage of limited transfer resources as a means for achieving national policy goals.

The system is failing because of tremendously increasing service delivery expectations at all levels of government, the decreasing willingness to pay for those services at local levels, the increasing degree of competitive behavior of state and local officials in the grantmenship game, and the decreasing amount of transfer resources being made available by national to local officials. The system is failing because of strategic usage of decreasing resources, by trying too much with too little, not because the system has become too organizationally complex.

Empirical Structural Incoherence

This overuse of organizational complexity denies the fact that federal structure in place today is exists because the old dual federal structure failed to solve civil rights conflicts, to enhance stabilization policy goals, or to provide local public services at the levels demanded by community governments and their constituents. In response to the failure of dual federalism to solve modern policy problems, the federal structure has become much more complex and in many ways more difficult to understand. But this section does however provide a clear link between the community limitations and intergovernmental overload hypothesis to the same general phenomena: increasing competition for scarce transfer resources.

The prior account of federalism provides a coherent overview of analytical and empirical federalism theory. The structural incoherence of modern federalism has been described with a number of colorful metaphors. This emphasis on federal organizational behavior, focused on intergovernmental administrative complexity and macro-systemic failures. At the macro level, researcher's hypothesize that the modern federal system is overloaded, while micro-level community limitations are found at the local level.

IV. A Political Economy View of Federalism Models

Fiscal Federalism Models

Fiscal federalism is a complex system of intergovernmental resource transfers. These resource transfers include both national and subnational tax and expenditure policies. By concentrating on tax and spending policy, fiscal federalism provides a largely economic federalism theory. But to a great extent, national fiscal policy determines community policy limitations with resource transfer programs.

The fiscal federalism literature in economics has evolved within a specific neo-classical welfare tradition. This ("first best") welfare tradition has two important consequences for fiscal federal theory. Fiscal federalism presumes national authority for tax and spending policy and the existence of a single national welfare function, so that distributional policy is a national function.

Crucially, economic theories tend to represent federalism as a unidirectional decision making structure where national authorities have primary authority. This primary authority stems from formal rules and a belief that only the national government should make welfare judgements.

A welfare function contains all the relevant datum necessary to set policy goals. Policy goals include equity, efficiency, and stability. Fiscal federalism models generally assign equity and stability goals to national officials, in the form of a single welfare function. Both the distributional weighting of individuals, and the interpersonal comparisons necessary to determine weights, are believed national government functions.[45]

National officials are assigned the following important policy making tasks: they must determine the relative priorities of policy goals; they must assign distributional rankings and aggregate individual preferences according to the policy goals set; and, they must enforce the redistribution of resources, with interpersonal and intergovernmental transfer payments, in order to maximize social well being. Thus, redistributional policy is exclusively a national function, because it requires a highly complex operation of goal setting, evaluative comparisons, and enforcement mechanisms to be successful.

Criticism of First Best Economic Theories

Fiscal federalism is deficient in two important respects. As a conceptual theory of federalism it is deceptively simple. This simplicity comes at a price. The price is that it assumes primitive terms, such as a national public interest (or public goods allocation) and a single welfare function. These primitive terms are not generally refutable.

The first problem suggests governments attempt to pursue policies which are in the public interest. Yet a single public interest does not exist in a general context. In those few environments where some public interest is clear, there are often competing policies for achieving the public interest. Thirty years of social choice theory research has proven that even if an unambigous public interest exists, a democratic process may not exist to find it. First best fiscal federalism is deficient because aggregate well-being is poorly defined and prone to multiple interpretations and approaches.

The underlying concepts defining fiscal federalism are deceptively simple, in contradistinction to the organizational process approach. Yet first best theories rest on contradictory values. Since these values are problematic, fiscal federalism supplies a very limited federal structure. National officials are solely responsible for designing and implementing virtually all policies. All equity policy goal setting responsibility and redistributional activities are given to national officials.

Yet equity goals and redistributional policies are pursued and implemented by community officials. Community level redistribution is less effective, and far less elaborate, than national equity goals for many reasons. However, some redistributional (and stabilization) policies are undertaken at the community level.

Given increasing community competition, and decreasing transfer resources, we would also expect that decreasing redistributional activities at the community level. Also, bargaining versus unilateral dominance is rule, rather than the exception to intergovernmental relationships. The simplicity of (first best) fiscal federal models run counter to the existing strategically competitive environment.

Experience dictates a political economy interpretation of federal structures, sensitive to real world competition and strategizing to obtain resources. A political federalism theory should allow for equity and efficiency decisions to be set by national and subnational officials.

A Political-Economic Model of Federalism

Social choices produced by fiscal federalism are determined by national authorities whereas political federalism produces social choices through intergovernmental bargaining. The intergovernmental bargaining process is an elaborate system of community jurisdiction service delivery. Through those shared and concurrent powers, a federal structure distributes legal powers in order to supply increasing public good demands.

Even though local autonomy exists under political federalism, community policy discretion is limited, since political federalism specifies a game theoretic, rather than economic decision theoretic, context. Community decision making is limited because national authorities dominate national-subnational bargaining relationships.

The intergovernmental bargaining process has rules which favor national agents, national agents have more resources, and local actors compete with each other. Community officials may set equity goals. But there is a penalty for straying from national priorities. Other communities will benefit by attracting resources from natioal authorities and by using incentives to attract resources from a community which attempts to set an independent course of action.

In contrast, fiscal federalism severely restricts local autonomy in order to set equity goals, and to prevent destructive community competition. Redistributional and stabilization policies are considered primarily national functions.

The national government priorities are represented by the existence of a single social welfare function.

Political federalism allows for multiple community welfare functions. Each community may establish equity, efficiency, and stability goals consistent with the constitutional division of power. This intergovernmental bargaining process is shaped by national grant monies and community competition for transfer resources.[46]

Political federalism consists of competitive or non-cooperative bargaining relationships. Each local government sets relative standards, makes interpersonal comparisons, assigns distributive rankings, and then enforces policies at the community level.

The role of welfare judgements also differ in fiscal and political federalism models. In fiscal federal models, national autorities determine the public interest. The national government has popular sovereignty to determine the public interest from individual values directly, rather than via community polities. Once public good demands are expressed, national authorities design and implement policies.

Modern political federalism is a kind of compact or social contract theory. Communities set policies which correspond to competitive and strategic political realities. Vertical intergovernmental relationships tend to allow the higher partner to dominate the lower by having rule and resource advantages. Horizontal relationships tend to be non-cooperative as equals tend to compete. In the extreme, horizontal relationships are destructively competitive. National officials aggregate both community welfare functions, and individual preferences. The nature and form of this aggregation mechanism is quite complex, given the enormous difficulty of coordinating strategic behavior, community competition, service delivery, and redistributional activities.

V. Conclusion

The Purpose of Institutions

Institutions serve many purposes. Institutions determine how individuals reveal preferences for policy alternatives. And institutions effect collective policy outcomes. The existence of certain institutions, such as federalism, has a stabilizing effect upon both state and local political processes and outcomes. A federal structure performs this stabilizing function by dividing power through vertical and horizontal intergovernmental relationships.

The fundamental social choice problem is to fairly aggregate individual preferences into stable group choices. Direct aggregation mechanisms, like pure majority rule, cannot be relied upon to produce consistent group choices. Pure majority rule institutional arrangements have proven to be unstable for translating diverse individual preferences into multidimensional policy choices.

In certain situations, indirect aggregation mechanisms can generate minimally consistent group choices. New institutionalism is the study of how contextual factors, like structures, rules, and procedures affect individual demand revelation and the stability of group choices. By structurally imposing group choices in situations where direct majority preference exists, we can partially solve Arrow's paradox.

Of course "institutional features...do nothing to mitigate the (nonexistence) results of Plott, Cohen, McKelvey, Schofield, Schwartz, and Slutsky; it is still true that the majority preference relation is ill-behaved, and this instability underlies and affects ultimate (group) choices."[47] In the absence of stable preference induced equilibrium, institutions temper the cyclicity of pure majority rule.

Structures solve the voter paradox by relaxing (or violating) Arrow's seldom cited nonimposition or citizen sovereignty condition. Representation systems, veto hierarchies, and other organizational structures all impose stability on political adjustment processes and outcomes. But the nonexistence of social welfare functions under general conditions, and the global instability of pure majority rule, pose fundamental contradictions for democratic institutions, whose normative significance cannot be solved totally by representative imposition of group choices.

Federal System Stability

A federal structure is a complex set of intergovernmental rules and resource transfers mechanism for aggregating diverse community interests into public policies. The purpose of federalism is to provide a stable institutional framework for making political choices, in environments where community interests are unclear, individual demands are diverse and changing, and where all interests are often times conflictual.

By structurally dividing power, a federal system reduces the instability and scope of direct collective choice rules. A unitary structure, where a single heterogeneous national community has global policy authority, is an unstable means for determining group choices. A federal structure induces stability by creating semi-autonomous (homogeneous) communities, and by transferring resources in order to influence local jurisdictional policy choices.

Federal system stability comes about because a federal governmental structure divides, checks, and balances the formal political power of elective officials and citizen-voters. In this sense, a federal structure imposes stability by limiting the sovereignty of (national and community) leaders and their constituents ability to unilaterally or directly translate individual preferences into group policies. A federal structure induces stability by limiting the scope of conflict through intergovernmental checks and balances.

CHAPTER TWO ENDNOTES

1. Diamond, M. "What the Framers Meant by Federalism," in Robert A. Goldwin (ed.). A Nation of States. (Chicago: Rand McNally, 1974).

2. Shepsle, K.A. "Institutional Arrangements and Equilibrium in Multidimensional Voting Models," American Journal of Political Science, 1979, 23, pp. 27-59.

3. Riker, W.H. Federalism: Origin, Operation, Significance. (Boston, Mass.: Little, Brown and Company, 1964), p. 137.

4. Shepsle, K.A. and B. Weingast. "Structure Induced Equilibrium and Legislative Choice," Public Choice, 1981, 37, pp. 503-519.

5. Peterson, P.E. City Limits. (Chicago: The University of Chicago Press, 1981).

   Wright, D.S. Understanding Intergovernmental Relations. (North Scituate, Mass.: Duxbury Press, 1978), p. 121.

6. Batra R.N. and P.K. Pattanaik. "On Some Suggestions for Having Non-binary Social Choice Functions," Theory and Decision, 1972, 3, pp. 1-11.

7. Arrow, K.J. Social Choice and Individual Values. (2nd. ed. New York: Wiley Press, 1963), pp. 28-30.

8. Kramer, G.H. "On a Class of Equilibrium Conditions for Majority Rule," *Econometrica*, March 1973, **41**, pp. 285-297.

9. Mueller, D.C. *Public Choice*. (New York: Cambridge University Press, 1981), p. 128.

10. Tresch, R.W. *Public Finance: A Normative Theory*. (Plano, Texas: Business Publications Incorporated, 1981), p. 598.

11. Oates, W.E. *Fiscal Federalism*. (New York: Harcourt Brace Jovanovich, Inc., 1972), pp. 34-35.

12. Frohlich, N. and J. Oppenheimer. *Modern Political Economy*. (Englewood Cliffs, N.J.: Prentice-Hall Foundations of Modern Political Science Series, 1978), p. 22.

13. Tiebout, C.M. "A Pure Theory of Local Expenditures," *Journal of Political Economy*, Oct. 1956, **64**, pp. 416-424.

14. Ibid. p. 416.

15. Ibid. p. 424.

16. Buchanan, J.M. and C.J. Goetz. "Efficiency Limits of Fiscal Mobility: An Assessment of the Tiebout Model," *Journal of Public Economics*, April 1972, 1, p. 26. (25-43)

17. Tiebout (1956: p. 424)

18. Bewley, T.F. "A Critique of Tiebout's Theory of Local Public Expenditures," *Econometrica*, **49**, p. 739.

19. Fisch, O. "Optimal City Size, The Economic Theory of Clubs, and Exclusionary Zoning," *Public Choice*, Winter 1975, **24**, pp. 59-70.

20. Tiebout (1956: p. 424)

21. Mueller, D.C. Public Choice. (New York: Cambridge University Press, 1981), p. 129.

22. Miller, G.J. Cities by Contract: The Politics of Municipal Incorporation. (Cambridge, Mass.: MIT Press, 1981), p. 39.

23. McCarthy, D.J. Local Government Law. (2nd. ed. St. Paul, Minn.: Nutshell Series of West Publishing Company, 1983).

24. Shepsle (1984)

25. Miller (1981:p. 130)

26. Layard, P.R.G. and A.A. Walters. Microeconomic Theory. (New York: McGraw-Hill Company, 1978), p. 192.

27. Ibid. (1978: p. 192)

28. McGuire (1974)

29. Oates (1972: pp. 34-35)

30. Stigler, G. "Tenable Range of Functions of Local Government," Federal Expenditure Policy for Economic Growth and Stability. (Washington D.C.: Joint Economic Committee, Subcommittee of Fiscal Policy, 1957).

31. Batra and Pattanaik (1972)

32. Sen, A.K. Collective choice and Social Welfare. (San Francisco: Holden-Day Pub., 1970), pp. 87-88.

33. Peterson (1981: p. 3)

34. Peterson (1981: p. 4)

35. Peterson, P.E. "A Unitary Model of Local Taxation and Expenditure Policies in the United States," British Journal of Political Science, 1979, 9, pp. 281-314.

36. Friedman, J.W. Game Theory with Applications to Economics. (Oxford: Oxford University Press, 1986), pp. 23-24.

37. Miller (1981: p. 165)

38. Walker, D.B. Toward a Functioning Federalism. (Cambridge, Mass.: Winthrop, 1981), pp. 8-9.

39. Hale, G.E. and M.L. Palley. The Politics of Federal Grants. (Washington D.C.: Congressional Quarterly Press, 1981).

40. Grodzins, M. The American System, ed. by D. Elazar. (Chicago: Rand McNally, 1966).

41. Peterson (1981: p. 13)

42. Ibid. (1981: p. 13)

43. Hamilton, C. and D. Wells. "Viewing Federalism as a Complex Political Economy: The Macro Social Functions of Federalism," Paper Presented at the Annual Meeting of the Sourthwestern Social Science Association Meeting at the Dallas Hilton, March 18-21, 1987.

44. Walker (1981)

45. Tresch (1981: p. 597)

46. Ingram, H. "Policy Implementation Through Bargaining: The Case of Federal Grants-in-Aid," Public Policy, Fall 1977, 25, pp. 501-526.

47. Shepsle (1979: p. 59)

CHAPTER THREE

THE HOME RULE REFORM PARADOX

I. Structural Reform Strategies

Progressive Political Strategies

The political strategy of reform is to play upon some paradox which an incumbant coalition can not resolve under a new set of rules without internal conflict. Structural reformers of any era attempt to construct a set of rules in the form of "a trap so clever that no matter how the opponent responds, the response itself would give a future victory."[1] Losing coalitions can either introduce new issues or change the rules of the game in order to divide winning coalitions. Internal strife among the winners will then lead to a new winning coalition forming thus upsetting status quo institutions and policies.

Revolutionary local institutional changes took place during the progressive reform era. Progressive municipal reformers sought to gain control of local government from political party machines.

Radical institutional changes were necessary for the reformers to upset the status quo. The progressive reformers' political strategy was to change institutional arrangements in order to place party machines at an electoral disadvantage.

The widespread institutional changes of the era are a testimony to the progressive reformers' political success. Examples of progressive reforms included 1) shorter ballots 2) primary elections 3) non partisan elections 4) at-large legislative constituencies 5) civil service criteria 6) appointive local executives 7) improved budgeting and accounting systems, and most importantly, 8) expanded state provisions for local self government. While many of these reforms were instituted, progressive candidates often failed to win elections. But this lack of electoral success cannot detract from the reformers lasting impact on community politics.

The progressive reformers were not adept candidates. Their amateur view of political leadership and institutions precluded personal success. But they were highly effective political strategists because they changed the rules governing local politics. Progressive reformers structured the rules of community politics so they could upset the status quo party machines and begin implementing policies.

Progressive reformers were able to build a winning coalition by one, fostering inter-ethnic group conflicts, thus dividing the immigrant voter bloc; and two, by asserting that party machines could not "maintain public order, protect private property, and improve the urban quality of life"--platforms that mobilized middle class voters to join the progressive coalition.[2]

Expanded state provisions for local self government, home rule, created a dilemma for party machines because home rule increased local autonomy. Increasing autonomy benefitted all local governments, including those cities dominated by party machines. However party machines were dependent upon the state legislature for enforcing their policies over areas not controlled by the machines. Once all communities had greater local autonomy over internal affairs, no central city could dominate across jurisdictions.

Party machines depended upon immigrant voters. The fragmentation resulting from home rule created political opportunities for immigrants by increasing the number of cities. With home rule immigrant voters had more service options available. Fragmentation also provided opportunities for ethnic leaders and voters to exercise direct influence over local government. This enabled some communities to achieve an equal position within existing party machines while others were able to assert independence.

Prior to home rule, party machines utilized selective incentives and exclusionary devices to form winning state legislative, central core city, and metropolitan area coalitions. But the combination of a organized urban middle-class and diverse ethnic groups, created the potential for winning reform coalitions to emerge. Progressive reformers played upon both intra-city and inter-community differences by formulating successful election and administrative reform proposals under the aegis of home rule.

The machine era is normally described as corrupt, yet administratively and electorally stable. However no unitary party machine "captured" local government. Party machine leadership and organizational structures were always changing. But party machines did take advantage of existing rules and resources to win in an unstable environment.

> "It (was) not that the foreign born voter... preferred to vote...blindly (for) some political faction. If (the immigrant voter) had too often proved to be the tool of the exploiter, it (was) largely because a system of partisan (electoral rules) had given the latter a redoubtable position."[3]

If uniform immigrant support for party machines had existed, progressive reforms would not have had widespread voter appeal.

Progressive Influence on Community Organization

The governmental structure in existence prior to home rule favored vertically integrative political organization. Furthermore, given the horizontal concentration (or central city monopoly provision) of local services, immigrant voting blocs, and special legislative acts were necessary to maintain integrative organizations. Party machines were successful because they were integrative organizations.

For the progressive organizations to begin winning, they needed to reform structures in order to produce a different political environment. "And this is what political strategy is all about, structuring the world so you can win."[4] The new structures created an environment with the following characteristics being important to coalition formation: large numbers of local service options, middle class voters, and general law charters.

Once home rule produced a new environment, fragmented progressive style local organizations were required to win elections and to implement policies. Thus the progressive strategy was successful even though progressive candidates did not always win. Party machines did continue to win elections, but policies were made within progressive structures. The progressive coalition used home rule to create an environment favorable to their style of political organization.

Thus progressives attacked party machines from two directions. First, home rule reduced access to outside resources (i.e. state money) and limited direct state intervention in local decisions. Second, home rule allowed reformers to attack machines within a community by changing both the local electoral and service rules. The following is a historical review of home rule instituted by the progressive coalition in Michigan.

II. The Origins of Metropolitan Fragmentation

Special Act Incorporation: 1805-1908

From 1805 to 1908 the Michigan State Legislature had the power to pass special legislation affecting local governments. City incorporation acts were one form of special legislation.

In "Michigan's first constitution, in effect from 1835 to 1850, (there was) no mention of the organization and incorporation of cities. During this period no cities and only five villages were incorporated; Detroit had been incorporated in 1815 by a special act of the territorial legislature."[5] In the period from 1850 to 1895, under a new constitution, 89 cities and 297 villages were incorporated by special acts of the state legislature.[6]

The party machines in Michigan were influential from around 1875 to 1908 under the 1850 Constitution. Party machine influence was bolstered by special act legislation. Special acts benefitted the party machines by permitting state monies to be allocated on a case by case basis for local projects.

Progressive reform organizations began, in part, as a protest to the corruption associated with direct state legislator involvement in local projects. Home rule altered this relationship between state legislators and cities by augmenting local autonomy. With the expansion of local autonomy cities were better able to resist annexation.

The Threat of Annexation: The Delray Proposal

In 1905, the City of Detroit annexed 22,000 people from unincorporated territories: 9,000 residents of Delray Village, 7,000 in Woodmere Village, and 6,000 people from Springwell Township.[7] The area contained over ten million dollars worth of property, including twelve factories and brick yards. The area lay southwest along the Detroit river.

The Delray annexation involved a reform mayor in Detroit and a suburban party machine. Progressive reformers supported annexation in order to improve local services to the middle-class Woodmere area and to break the Delray machine. Detroiters also favored annexation as a means to increase the industrial tax base. Suburban communities perceived the annexation as a threat to their political independence and economic resources.

For 1905 the annexation of 22,000 people was a dramatic political event. The case had a greater symbolic than practical effect. The annexation signalled Detroit's proclivaty for expansion. Given the uncertain future for progressive rule in Detroit, and the potential suburban tax base losses associated with industrial strip annexation, the Delray case revealed the credibility of Detroit's annexation strategy. After Delray, suburban cities premised their incorporation decisions upon a credible annexation threat.

In a front page story titled, "Delray Failed Them" The Detroit Times described the wild electoral scene:

> "In vain did the 'antis' of Delray fight against the odds established in Woodmere. The river town was expected to pull a majority of 400 against the annexation to offset the known predilections of Woodmere and Springwells (township), but this anti-majority dwindled to 79. "Rah for Jimmy Burns, and to hell with annexation," yelled one of the 2,000 in the middle of Woodmere road with his burden of beer and sorrow. Confiding habitues of the road houses spoke feelingly of "Jimmy" Burns and his decaying power in the pastures. "Just six more months boys, whooper up," (as) all along the west end pike that joins the three villages could be heard the merry round of the slot machine."[8]

Between the unincorporated territories of Woodmere Delray and Springwells Township, the combined vote was 1124 to 610 in favor being annexed to Detroit.

Both Detroit residents and the combined village population were allowed to vote on annexation. Delray and Woodmere village and Springwells township residents' votes were added together. Hence a faction within a single community could pass (or reject) annexation proposal for several jurisdictions' residents within an affected area under the 1850 Constitution.

Annexation to increase the industrial tax base created strife within the progressive coalition. Suburban progressives feared the precedent set by Detroit expansion. Suburban communities faced tax base loss, and the prospects of being dominated by political leaders and organizations responsive to Detroit constituencies. Furthermore, the suburban leadership all faced a loss of political influence. Annexation by Detroit would have eliminated a number of local township supervisor, village president, and small city mayor jobs.

The Delray annexation divided urban progressives from small town and suburban progressives. The Delray incident mobilized the structural reform wing of the progressive coalition. Political leaders on all sides began calling for home rule to limit future annexation attempts.

After the Delray annexation experience, the 1908 Constitutional delegates provided for three separate voting constituencies on annexation proposals. First, the residents inside a proposed annexation voted separately. If residents are contained in three local political units (i.e. a village or township), then three independent elections are held for residents within a proposed annexation. Second, residents in the city proposing annexation vote as a unit. Third, the residents inside a political unit not included but affected by a proposed annexation must also vote. The 1908 Constitutional home rule provision limited annexation by requiring annexation proposals to be approved by all three separate constituencies. An annexation fails if one constituency rejects the proposal.

The 1908 voting rule would have changed the Delray annexation outcome. First, Delray and Woodmere village and Springwells township residents' votes would have been counted separately. Since a majority of Delray residents voted against the proposal, they would not have been annexed to Detroit. Second, the remainder of Springwells township residents outside the proposed area would have had to vote on the annexation because Delray and Woodmere village residents were contained within Springwells township. Even though Woodmere village and Springwells township residents inside the proposed annexation area voted to join Detroit, Springwells township residents outside the area could have vetoed the whole annexation by voting against the proposal. After the 1908 Constitution, proposed city annexations had to obtain majorities in three separate voting constituencies.

The 1908 Constitutional Reform Strategy

In the 1908 Convention, progressive reform organizations changed the rules of local politics to put party machines at a strategic disadvantage. The progressives passed articles which were vigorously protested by party machines because they placed machine organizations at strategic electoral and policy disadvantages.

Progressive officials gained an advantage because they controlled local government in many suburban areas, and virtually all the rural local governments in the lower penisula. Machines won local elections in a few of the largest cities, while progressives dominated in a large number of small cities and townships.

Progressive (republican) reform organizations benefitted from increasing home rule. They were given independent autonomy to make policy decisions at the local level, at the same time governmental fragmentation decreased the influence of partisan machines.

Local officials and Republican party members still benefit from home rule. Greater autonomy and fragmentation is generally to the Republican Party's advantage because they control a larger number of small cities and a majority of the (partisan) elected township positions. Passage of home rule at the 1908 Constitutional Convention was not neutral with respect to political organization's electoral and policy strategies.

Central Core Annexation Votes from 1905-30

Detroit's legal boundaries have not changed since 1926 when Detroit tried to annex Macomb County residents. Table 3.1 describes Detroit's annexation votes from the Delray proposal in 1905 to the cross-county Hazel Park Village annexation proposal of 1926.[9] The percentage favoring annexation are broken down for city and township voters residing inside or outside the territory proposed for annexation.

TABLE 3.1
VOTE PERCENTAGE IN FAVOR OF DETROIT
ANNEXATION BY CONSTITUENCY AND YEAR

YEAR	DETROIT%	TOWNSHIP INSIDE%	TOWNSHIP OUTSIDE%
1905		65	
1915	82	68	
	*82	30	
	83	87	
	83	83	
	83	86	
	83	86	
1917	83	83	59
	*87	30	63
	87	79	80
	83	65	62
	87	86	77
	87	84	76
1918	86	78	64
1922	71	90	56
1926	67	85	70
	*--	78	32
Average	.82	.74	.64
Deviation	.06	.18	.13
Skewness	-.44	-.41	-.35
Kurtosis	.33	.27	.39

Thirteen of the seventeen proposals occured from 1915 through 1918 during World War I. The average Detroit support for annexation was 82%, fully thirteen of the fifteen Detroit elections were over 80% in favor of annexation. In these fifteen elections, Detroit residents' favorable support for annexation was all within plus or minus 6% of the 82% average.

Consistent Detroit support for annexation does not fall until the 1922 and 1926 proposals involving fringe villages located far from residential Detroit areas. The simple correlation between Detroit annexation vote's and time is equal to -.64 indicating moderately strong negative downward trend. Detroit support for annexation dropped to 76% and 67% because the proposals required higher costs for extending services to residents in Redford Village and Hazel Park Village. The land between Detroit and these two villages was largely rural with few services or industrial and commercial activity. The less consistent support for these proposals was caused by city resident's unwillingness to expand into high service cost and low property value territories.

Voter support for annexation within the territories differs slightly from the Detroit preferences revealed. The average support for annexation was 74% for residents within a proposal area. Hamtramck Village residents rejected Detroit annexation proposals in 1915 and 1917. In the 1917 election, Hamtramck voters rejected the proposal by a 70% margin while the rest of Hamtramck Township approved the detachment by a 63% vote. The standard deviation for territories being annexed was four times larger than the average deviation for the Detroit votes, indicating a less consistent support for annexation by affected territory voters.

The average level of support among township voters for detachment was 64% with a standard deviation of 13%. The number of voters residing in a township, but not included in the proposed annexation, was usually very small. Voters within a proposal normally lived within a a subdivision constituting a small part of the township land. Voters within a proposal were essentially the first suburban residents in metropolitan Detroit while detachment voters lived in small (agricultural) villages.

Further statistical evidence suggests that only minor differences in city, suburban, and small village resident support for Detroit annexation existed. A nonparametric test for sample independence is appropriate given the lack of information about individual voter's preferences for (or against) annexation. The Kruskal-Wallis test for sample independence is equal to 15.22 which is approximately equal to a chi-square distribution with two degrees of freedom with a probability value of .0005.[10] The observed K-W test value rejects a null hypothesis that the annexation vote results are drawn from statistically independent populations. Voting occured under legally independent constituencies yet the aggregated electoral outcomes indicate a degree of underlying preference homogeneity supporting Detroit annexation.

In only one situation did an area favor annexation while the remainder of a township voted against detachment. Hazel Park Village approved

Detroit's annexation proposal 85% to 15% while the rest of Royal Oak Township voted against detachment 68% to 32% in 1926. Since this annexation proposal cut across Wayne into Oakland County, Royal Oak Township resident's feared the potential future ramifications of cross-county annexation. The Hazel Park Village defeat and the subsequent Warren Township (Macomb County) court challenge ended further cross-county Detroit annexations.

The 1922 Gratiot Township and the 1926 Redford Village annexations extended Detroit's boundaries in a northeastern and northwestern direction to their present locations. Both of these areas have recently attempted to detach themselves from Detroit in order to be joined with the City of Harper Woods and Redford Charter Township. During this period of Detroit annexation, Highland Park became the first suburban Detroit village to incorporate in 1917 under the 1908 Constitution. Hamtramck Village incorporated as a city in 1922. Thus, within a decade the strategic impact of home rule limited Detroit boundary expansion. Highland Park and Hamtramck responded to Detroit's annexation threat by defensively incorporating, Warren Township prevented future cross-county Detroit annexation, and the last Detroit boundary expansions occured with lowered levels of support.

Defensive Suburban Home Rule Incorporation: 1918-68

From 1918 to 1940 sixteen cities incorporated on Detroit's boundaries. Twelve cities of these cities incorporated in Wayne County. This series of municipal incorporations effectively blocked off all future Detroit boundary expansion. From 1945 to 1968 thirty eight more suburban cities incorporated. At the same time the City of Detroit's population decreased from two to nearly one million residents.

The post World War II housing supply expansion increased development of commuter municipalities. With the housing supply expansion, new communities could incorporate their property tax base and provide low cost local public services. Suburban incorporation granted these "municipalities a property right to all the resources they (could) squeeze into their corporate boundaries, while similarly benefiting all those cities that (could) squeeze out of their boundaries those groups of individuals who put a strain on municipal resources through their redistributional demands."[11]

These second tier municipalities were both industrial and commuter suburban communities. None of these municipalities shared boundaries with the central core City of Detroit. Second tier municipal incorporations surrounded the older (first tier) suburbs coterminuous with Detroit. Second generation suburban incorporations reflected a desire to block strip annexation threats from older suburbs and a need to provide more services to fringe metropolitan residents.

The 1908 Constitution had encouraged municipal incorporation by providing low entry barriers to potential cities and by providing restrictive barriers to existing cities. Existing cities could not easily manipulate their territorial boundaries to reflect service demands and delivery areas. Home rule did grant local self government to all general purpose municipalities. Municipal entry was not highly regulated so that community formation became a local rather than state legislative decision. Thus home rule encouraged large scale defensive incorporation and limited all existing municipal changes by assigning each city a property right-annexation veto.

III. State Regulation of Metropolitan Fragmentation
The 1949 Charter Township Act

Until 1949, Detroit expansion in northeastern and northwestern directions was still feasible. After all, strips of both Gratiot and Redford townships had already been annexed into Detroit. Further Detroit encroachment would have involved virtually all of the remaining township areas. Urban township residents' all across the state demanded some rule to protect these areas from being "swallowed up" in either a single large proposal or a series of small proposals.

Township officials and residents also were increasingly concerned about the structural limitations constraining township government in all areas of the state. The Michigan Township Association lobbyied the Legislature for structural reform. The legislators' response was the 1949 Charter Township Act.

The 1949 Charter Township Act had very little initial impact upon Detroit metropolitan fragmentation. Warren Township became the only township in the whole state to approve "charter" status in 1949. Only three charter townships were in existence before the 1961 Michigan Constitutional Convention. But the charter township act did serve a fundamental purpose: township residents could deliver more services and charge higher taxes to pay for them. Townships could charter themselves in response to the threat of strip annexation. But without a means to satisfy resident service demands at low prices, they could not hope to compete against existing municipalities in an annexation election.

The three urban townships adjacent to Detroit all took action to prevent further annexation. Gratiot township incorporated as the City of Harper Woods, and Redford and Warren Townships became charter townships. The Charter Township Act increased the number of choices available to unincorporated residents. The Charter Township Act was intended as a way to modernize urban township services yet the intent was to bloc munipal consolidation in metropolitan areas.

Home rule chartering for townships was an incremental reform procedure for slowly altering local governmental structures. Urban townships were supposed to use the Act to change from rural to urban governments. The State Legislature intended the chartering process to create a additional halfway point between rural township and home rule urban city government. The long term effect has been to incorporate all urban townships as (minimal) fiscal policy actors without requiring them to go through a state regulated incorporation process. The Charter Township Act provided the option of defensive incorporation to any (formally unincorporated) township residents threatened by strip annexation. At the time of the Act, there were 1,200 townships in Michigan but only 100 contained populations over 5,000. Most of the heavily populated townships were located in metropolitan areas.

The State legislature strengthened the Charter Township Act prior to the 1961 Michigan Constitutional Convention. The degree of fiscal policy discretion and organizational flexibility was increased with the 1960 revision. In the Detroit metropolitan area many townships had already become incorporated suburban municipalities. But most second tier cities had not followed township boundaries: for instance, Ecorse township became the cities of Ecorse, Melvindale, Lincoln Park, Allen Park, River Rouge, and Woodhaven.

According to the 1960 census, 200 of the 1200 townships in Michigan contained over 5,000 residents. Between 1960 and 1977 18 townships became chartered under the revised Act. The remaining urban townships in the metropolitan Detroit area are all charter townships. During the 1970's Redford Township became the largest "minimal" city -township- government in the country with over 80,000 people.

The Charter Township Act of 1949 and it's subsequent revisions provided a compromise. Charter townships can offer more local public goods and charge higher tax prices than rural (unincorporated) townships. And these tax prices and service offerings purportedly cost less than what residents would pay if they became a city. Townships

> "which choose this form of government do not actually adopt a charter as cities or counties may do. The Act itself is a charter, and it requires the same organization of government as for general law townships. Charter townships do have additional taxing powers and may levy up to five mills without a vote of people...They have a better credit rating for borrowing, the same ordinance-making power as cities, and more flexibility in administration. The more urban townships in Michigan have opted to become charter townships because this increased flexibility facilitates provision of the urban kinds of services required by their constituents."[12]

In a single act the Michigan legislature incorporated a whole third tier of minimal cities. By passing this law, the state legislature institutionalized a continuoum of home rule which subsequently increased metropolitan fragmentation.

At this point it is worthwhile to note that a highly differentiated metropolitan governmental structure had evolved in Michigan's urban areas. Laizzez-faire community entry had produced first, second, and third tier cities. The effort to increase inter-community competition by increasing structural fragmentation was a stunning success. The first tier consisted of areas blocking central core expansion; the second tier defensively incorporated to block the threat of first tier strip annexation and to provide services; the third tier involved no formal incorporation, but was motivated by a desire to protect existing township boundaries and increase services without increasing taxes. The cumulative impact of unrestrictive state regulation (including the state's recognition of townships) produced a fragmented metropolitan governmental structure.

The State Boundary Commission Act in 1968

The 1908 Constitutional home rule provision had decentralized community formation decisions. Enforcement of state entry barriers limiting municipal incorporation was very low. Low entry barriers and decreasing community formation costs enabled many suburban communities to take advantage of the home rule tax and service options. Home rule incorporation lead to a proliferation of communities in metropolitan areas. The State Legislature responded to calls for metropolitan reform by passing the Boundary Commission Act.

The Boundary Commission Act established an agency to regulate new community formation and to arbitrate existing community boundary adjustments. The Commission's primary function was to regulate incorporation rather than annexation decisions. The Act stated that the Boundary Commission

> "must review and approve petititons proposing the formation of a new city or village. If the Commission finds that the petitions are in order, it must then set a date for a public hearing to be conducted in the affected area within 180 days. Thereafter, on the basis of a number of criteria provided in the act, the Commission may take one of three actions. It may: 1) deny the petition for an election on incorporation to be held, thus terminating the case; 2) approve the petition and order the election to be held; 3) revise the boundaries of the proposed incorporation and order an election on the incorporation in accordance with the revised boundaries." [13]

The principal focus was on new municipal incorporation proposals. The Boundary Act granted the Commission full responsibility for implementing (strict) regulations governing incorporation decisions. But the Commission was not given the same authority over annexation decisions. The Boundary Commission was cast in an advisory role, in the sense that it could provide technical information or arbitrate non-binding solutions. The Boundary Commission thus regulates new incorporations and provides advice on annexation decisions.

By 1968, most boundary disputes involved charter township incorporation and annexation decisions. Third tier boundary disagreements affected fringe residents and township officials disproportionately. Given the status quo advisory role of the Boundary Commission, it is perhaps not surprising that township residents perceived that the Commission was biased against them in favor of second tier municipal incorporations. The Commission had more control over community entry rather than community boundary decisions. The Boundary Commission strictly limited charter township incorporation into cities at the same time existing cities began proposing strip annexations of industrial and commercial land developments in charter townships. The legislation's intent seemed to favor strict regulation of incorporation while providing only limited oversight of annexation. The idea was to limit the number of new cities and provide a mechanism for arbitrating the large number of metropolitan annexation disputes between second tier suburban cities and the minimal city-charter township fringe areas.

The first case brought to the Boundary Commission involved three urban townships bordering the City of Flint. Mount Morris, Burton, and Flint townships all wished to incorporate. The City of Flint had annexed large strip of property cutting Flint township into two discontiguous pieces.

Flint had also strip annexed parts of Mount Morris and Burton townships. The Boundary Commission report stated that "annexation by the city of Flint has been highly selective. The only territories which the city of Flint has been able to annex are primarily high value commerical and industrial properties in which there were no residents. In spite of several attempts to annex territory of diversified land uses and in spite of affirmative votes by the voters of the central city, each such annexation proposal has been rejected by the voters of the suburban communities." [14]

The Boundary Commission report included extensive service benefit and cost analysis associated with incorporating a new city in the Flint area. The Commission redrew the potential community boundaries before it allowed residents to vote on community boundaries.

The Commission rejected one proposed incorporation, and revised the potential boundaries for the other two. One of the two revised petitions was defeated by voters under the redrawn boundaries. Voters approved the incorporation of Burton township into the City of Burton under the Commission revised boundaries. All three proposals were altered by the Boundary Commission before they were submitted to community residents for electoral approval. In this first controversy the State

Boundary Commission provided explicit cost, benefit, externality, and discounting criteria for regulating community incorporation decisions.

After Burton's incorporation there were no major incorporations from 1968 until 1977. Some villages were incorporated within rural townships during this period but these decisions were inconsequential for metropolitan structures. Of course most primary and secondary defensive incorporations had already taken place in the metro-Detroit and outstate metropolitan areas. Since the Boundary Commission could not retroactively regulate community formation or boundary adjustment decisions, many controversial incorporation and annexation decisions were not subject to Commission oversight or regulation.

Between 1971 and 1984, "the Boundary Commission processed 294 requests from cities that wanted to annex land, and it approved 182, or more than 60 percent of them."[15] Many existing community strip annexations did not require a vote because less than 100 residents were affected. The most difficult political conflicts brought before the

State Boundary Commission involved second tier Detroit suburban strip annexations of third tier urban charter township commercial and industrial property.

Harrison and Shelby charter townships in Macomb County, Avon and Commerce charter townships in Oakland County, and Brownstown charter township in Wayne County represent the development of a third tier of Detroit metropolitan fragmentation. These five charter townships represent a disproportionate amount of the industrial and commercial growth in the metropolitan Detroit area. Present boundary conflicts are between the second tier of suburban communities incorporated from 1945-1968 and township residents "incorporated" under the 1949 Charter Township Act.

The 1978 Charter Township Revision

From 1949 to 1960, three urban townships "incorporated" themselves as charter townships. Many other townships incorporated as (parts) of cities in the post-war wave of suburban community formation. By 1977, there were 21 chartered townships.

In 1978, the state legislature revised the charter township act in response to the Michigan Township Association's lobbying the state legislature for a procedure to sidestep the Boundary Commission. The Township Association appealed for relief from the boundary decision process because the restrictions limited the Commission's authority to new incorporations. The Boundary Commission tended to favor second tier annexations of township property; the Township Association argued that strip annexation of valuable township land continued with minimal Commission oversight. Given the advisory role of the Commission, it was difficult for the Commission to oversee annexation decisions.

At the very least, the Commission did not have the formal authority to regulate annexation. In practice, the Commission appeared to favor contiguous city annexation over the Charter Township provision. Under the 1978 law, charter townships have some although, not complete, immunity against annexation. In a 1985 State Supreme Court decision, the Court ruled against a charter township in an annexation case. While the issue is still unresolved, it seems that townships cannot continue to utilize the township chartering rule like an incorporation rule. The township chartering rule does not appear to grant urban township residents an annexation veto.

After the 1978 revision 21 more townships became charter townships.[16] There are presently 80 charter townships. These charter townships supply a greater range and variety of local public goods, at higher tax-prices and costs than unchartered townships. But township supplied local public good costs, prices, quantities, and product differentiation are lower than comparable municipal incorporation service levels.

Charter townships provide metropolitan fringe residents with another option between city and rural township status. The charter township home rule option greatly increases metropolitan fragmentation by de facto incorporating all of the remaining third tier fringe residents. The Charter Township Act institutionalizes minor general purpose jurisdictions. These minimal cities provide fringe residents with a home rule option in addition to annexation or incorporation. At the same time, these charter townships compete with central cities and first and second tier incorporated suburban communities for resources.

IV. Phases of Metropolitan Structural Fragmentation

Phase 1: 1805-1908

The Regulated Monopoly Structure

Detroit was the dominant supplier of local public goods from 1805 to 1908. Detroit community boundaries contained a high percentage of the metropolitan population. The City had primary responsibility for supplying local public goods to metropolitan residents even though very few local services were available and those services available were offered in very limited supply.

The early central core dominance period constituted a regulated monopoly structure. The regulated monopoly period fostered a non-competitive vertically integrated metropolitan community structure. In 1805, Detroit was granted its' monopoly position under the Northwest Territory Ordinance. Detroit's charter was redesigned by the territorial Michigan legislature in 1815. The regulated monopoly structure was continued under the 1835 Constitution which had no provision for the incorporation of general purpose cities and villages.

The 1850 Constitution specified that the state legislature shall provide for the incorporation and chartering of cities and villages. But from 1850 till 1908, the state closely regulated local public goods monopolists through special act legislation. Special acts regulated Detroit policies as if the city were a public utility corporation. All city governments were treated like special administrative districts where the supply decisions were subject to direct state legislation.

By 1908 in Michigan it was clear that the special legislative act-- monopoly regulation system -- had very high transaction costs and that party machines had taken advantage of the city's monopoly supply position. Horizontal and vertical community competition achieved the progressives efficiency goal to limit rents available to local political organizations. In this manner progressive municipal reformers were very similar to the corporate "trust busting" progressives at the national level. Home rule provisions were like the Sherman Anti-Trust Act because they intended to limit monopoly supply power by both increasing horizontal (metropolitan) fragmentation and decreasing vertical (state to city) integration. Thus the logic of breaking the monopoly power of large firms extended to the breaking up of vertically integrated non-competitive party machines.

Phase 2: (1908-1950) The Oligopolistic Structure

The home rule concept was implemented by general law incorporation and chartering rules. This second phase of institutional development was marked by an increasing number of communities and by an absence of state entry barriers. A large number of first tier and a few second tier suburban communities incorporated in order to prevent central city (strip) annexation by taking advantage of the negligible state regulation of community formation. Community formation was encouraged with minimal artificial barriers.

Under low entry barriers and credible annexation threats, community proliferation induces a strategic form of metropolitan competition. Strategic interdependencies between contiguous local governments are caused by the fact that benefits and costs spillover jurisdictional boundaries. Existing cities strategically compete by strip annexing valuable commercial and industrial property while potential cities defensively incorporate resources.

Visable patterns of metropolitan fragmentation appear from 1917 to 1930 as new municipalities took advantage of low entry barriers in response to the success of Detroit's annexation proposals. Stable long term metropolitan fragmentation patterns emerged from the strategic behavior of central cities and first tier suburbs during this period. The strategic bilateral annexation and incorporation decisions affecting central city and first tier suburban city play a large role in determining fragmented metropolitan structures.

The small number of communities directly competing leads to interdependent central city and first tier suburban public goods supply and boundary decisions. Bilateral metropolitan competition causes the strategic design of local service delivery areas. Oligopolistic competition exist in spillover contexts where interdependencies causes existing and potential communities to strategically define their boundaries. Strategic community competition generates fragmented oligopolistic metropolitan structures through a bargaining process over spatial fiscal policy areas.

Phase 3: (1950-1987) The Monopoly Competition Structure

In the Detroit area a less strategically interdependent more competitive environment begins to emerge after the second and third tier suburban communities and charter townships incorporate. These incorporated communities compete with local property taxes in order to attract households and firms. The degree of intra-metropolitan competition remains imperfect because of the type of goods being provided by local government. A monopolistic competition structure describes an environment where a large number of communities are imperfectly competing to provide local public goods and services.

In this environment the central core city may still be a dominant actor in metropolitan service delivery. But the degree of competition among suburban communities and between the suburban communities and the central core city is quite substantial. A monopolistic competition structure is literally a situation with a large number of monopolists. The structural analysis can be modified to allow for differences in the relative size of monopolists. The dominant service delivery position of any community is limited by the large number local public good suppliers, regardless to the differences in sizes.

The incorporation of townships via the Charter Township Act is a primary cause of increasing metropolitan competition. Like the Lakewood Plan in metropolitan Los Angeles the Charter Township Act had the effect of immediately creating a large of cities in the economic growth areas of metropolitan Detroit. These minimal cities are in a position to compete with central cities and older (first tier) suburban cities since they can constitutionally guarantee permanently low tax-prices for services because township millage rates are mandatorily limited to nominal tax rates lower than city millage rates.

Charter townships can also fend off hostile strip annexations by nearby incorporated suburban communities seeking to augment their tax base. The The Charter Township Act and the constitutional home rule provision for townships passed in 1961 increased the degree of metropolitan fragmentation. This structural fragmentation greatly expanded the number of alternative local service delivery options available to metropolitan residents.

The proliferation of communities under home rule incorporation and chartering procedures restructured the nature and degree of intra metropolitan competition. Today Detroit and the older first tier suburbs are keenly competing with second and third tier cities and townships to provide jobs and local services. The development of an institutional arrangement (like charter townships or Lakewood Plan cities) in metropolitan fringe areas is crucial for understanding the increasing degree of (monopolistic) community competition.

State home rule options cause the direction and magnitude of this fragmentation induced competition. The home rule arrangement originated in a conflict between party machine organizations and progressive reform organizations vying for the control of municipal government. Progressive framers of constitutional home rule provisions intended to divide the "top and bottom" party machine coalition by increasing the number of forums. Middle "class representatives who did not share in the spoils but had to pay for them through property taxation complained bitterly about graft and provided the political base for the municipal reform movement."[17] The net result was to institute a political structure favoring metropolitan fragmentation by the creation of a large number of independent general purpose local governments.

V. Fragmentation Induced Metropolitan Stratification

Inter-Community Stratification

Fragmented metropolitan structures correlate with stratification patterns inside and among communities. Home rule reinforces income stratification and racial segregation by institutionalizing collective location choices. Class stratification is maintained within metropolitan political structures accompanying home rule induced fragmentation.

Table 3.2 describes the income and racial sorting in the five largest cities outside Detroit within Wayne County according to the 1980 Census.[18] The five major suburban cities are collectively less than one percent black (Total A).

Charter and rural townships are excluded from the non-Detroit Wayne County total and total black population calculations. These five cities contain 46%, of the total (non-Detroit) Wayne County

TABLE 3.2

1980 SUBURBAN CENSUS DATA

CITY NAME	TOTAL POPULATION	TOTAL BLACK
Livonia	104814	108
Westland	84603	2200
Taylor	77568	1266
Dearborn	90660	83
Dearborn Hts.	67706	63
A Total	425351	3720
Ecorse	14447	5675
River Rouge	12912	4218
Inkster	35190	19994
Romulus	24857	4333
Highland Park	27909	23443
Hamtramck	21300	2751
B Total	136615	60415

population but only 6% of the total (non-Detroit) black population. The relevant comparison is thus the degree of stratification among blacks living in incorporated Wayne County suburbs.

The second half (total B) of Table 3.2 describes the suburban Wayne County cities with higher proportions of black residents. The average percentage black is 44% in these five cities. Ecorse, River Rouge, Inkster, Romulus, (and the Detroit enclaves of) Highland Park, and Hamtramck contain 15% of the total population and 91% of the total black population of the non-Detroit incorporated Waynce County population.

Table 3.3 profiles the fifteen cities and two townships adjacent to the City of Detroit. Table 3.3 includes two Macomb County cities (Warren and East Detroit), four Oakland County cities (Hazel Park, Ferndale, Oak Park, and Southfield) and a township (Royal Oak Township).

According to the 1980 Census Detroit is 63% black with a $13,981 median income. For the contiguous cities the average percentage black is 13%. Clearly a wide range exists, from 84% to .1%, among these first tier suburban municipalities. The standard deviation for these communities is 24%, and the average median income is $22,013 with an $8,219 standard deviation, reflecting this wide range. Yet Detroit is socio-economically isolated from most of its incorporated neighbors and these fragmented incorporation patterns appear dynamically stable.

Racial and income differences between Detroit and contiguous communities exists. Perhaps even

TABLE 3.3

STRATIFICATION OF CITIES CONTIGUOUS WITH DETROIT

CITY NAME	% BLACK	MEDIAN INCOME
Wayne County		
Detroit	.63	13981
Highland Park	.84	$10298
Hamtramck	.13	11432
Harper Woods	.001	21436
Grosse Pointe Farms	.002	38400
Grosse Pointe Park	.002	29644
Grosse Pointe Woods	.001	32434
City of Grosse Pointe	.01	31514
Dearborn	.001	22135
River Rouge	.33	14242
Redford Township	.002	24746
Oakland County		
Southfield	.09	26451
Oak Park	.18	22215
Ferndale	.005	17592
Hazel Park	.001	17409
Royal Oak Township	.581	8836
Macomb County		
East Detroit	.001	21578
Warren	.002	23857

more striking is the degree of segregation among blacks living in suburban communities. While home rule was not passed with an intent to segregate blacks from whites in suburbs, home rule institutionalizes a system of political units correlated with racial segregation. Racial isolation remained constant between 1950 and 1980 and, if anything, slightly increased while relative income stratification actually decreased. Intra-Community Stratification

A simple indicator of internal community stratification is a an income score. An income score measures the relative dispersion of the income distribution within a community. The income scores used here equal the sum of the squared proportions of each city's families within each income class.[19]

The procedure for determining an income score is quite simple. First, find the income categories dividing the whole metropolitan areas income into roughly three (upper, middle, and lower) income classes. Second, given the income categories for the whole metropolitan population, determine how many residents fit in each category for all communities. Third, determine the proportion of community residents in each income "class" within the community then square and sum the proportions.

Forth, notice that if a community's population is equally divided into the three categories then it's income score will be equal to .33 reflecting the same division as the metropolitan population. If all of a community's residents fall in one category the income score equals one.

A community is stratified to the degree of income concentration in one of the categories. If the income distribution is evenly mixed within all communities in a metropolitan area, then the degree of metropolitan stratification would be low. Perfect stratification occurs when each community has an income score of one. Perfect dispersion occurs when each community has the same degree of dispersion as the metropolitan area or .33.

The metropolitan area score always equals .33 because we have selected categories dividing the income groups into three classes. If we presume that a metropolitan areas are heterogeneous with respect to income distributions, and if presume that communities are subsamples of the whole metropolitan population, then the difference from .33 tells us how much more homogeneous a community income distribution is relative to the metropolitan (base) income distribution.

The income score measures also provides a indication of the relative changes affecting communities over time. Increasing income levels make any specific income classifications irrelevant in very short periods of time. Since the index starts with categories selected for the for the whole metropolitan area, the relevant comparison is within a community with respect to the whole metropolitan population, not just a simple internal distribution measure. Even though a metropolitan income base may be changing over time, income scores are not contingent upon absolute income levels. The indicator measures community dispersion relative to the metropolitan distribution.

For instance older wealthy or "exclusive" suburbs will have income scores near one. They will tend to stay (upper income) homogeneous even though absolute income levels are constantly increasing. Income scores essentially identify outlier income distributions.

Table 3.4 above presents the income score results. Each cell contains the number of cities in that cell. The results for 1950 can be obtained by reading across, similarly the results for 1980 are read down. I distinguish between heterogeneous and homogeneous communities with an arbitrary income score cutoff of .37. Those communities with income scores greater than .37 are considered homogeneous and they are further broken down by which income category they are homogeneous.

TABLE 3.4

INCOME CLASS HOMOGENEITY FROM 1950-1980

	Heterogeneous Low	1980 Upper	Homogeneous
1950			
Het.	2	3	1
Hom.			
Low		1	
Middle	1 [Hazel Park]		
Upper	24	1	10

For example Hazel Park was a homogeneous middle income suburban community in 1950. By 1980 Hazel Park is a heterogeneous community with an income score less than .37. There were six heterogeneous communities in 1950 whereas by 1980 there are twenty seven.

The results in Table 3.4 are exactly the opposite of those found for the Los Angeles area. [20] The existing cities in metropolitan Los Angeles and the newly incorporated cities became relatively income homogeneous over time. All of the new Lakewood Plan "minimal cities" resembling charter townships were upper income homogeneous.

Only ten cities remained income homogeneous in the Detroit area. Hamtramck went from being upper income homogeneous in 1950 to low income homogeneous in 1970 while Royal Oak township remained low income homogeneous in both years. Unlike the City of Los Angeles, Detroit became more <u>homogeneous</u> (poor) over time. Only Riverview went from a rural income heterogeneity to an upper income homogeneous community out of the 43 Wayne County cities in Table 3.4. Over half of the cities (24) went from upper income homogeneity to income heterogeneity during this thirty year period.

Unlike Los Angeles communities the cities in the metropolitan Detroit area are increasingly becoming less homogeneous with respect to income distribution differences. Furthermore the central core city is becoming increasingly homogeneous (or isolated) with respect to the income distribution and racial composition of the metropolitan population. The existence of fragmented metropolitan governance has, at the very least, institutionalized collective location choices tending to reinforce patterns of class stratification.

VI. Dynamic Coalition Formation and Structural Reform Strategies

Structures are not neutral with respect to the participants. Institutional design features affect political organizational "flow" charts. A successful organizational structure in one institutional context may be completely useless in another. The ability to change or maintain a set of existing rules makes a crucial difference between politically winning and losing. Losing coalitions will continuesly attempt to introduce new issues. But oftentimes it is necessary to change the rules or (structurally reform the environment) before introducing new policy alternatives because an incumbant coalition uses existing structures to regulate the formal entry of new issues. When a losing coalition proposes structural changes they will likely select alternative institutional designs which best suit their organizational strengths and characteristics.

The Jacksonian populist structures benefitted those organizations and leaders which controlled the state legislature, the central core city in a metropolitan area, and a large number of satellite villages (or townships). Home rule benefits those organizations and leaders which control the largest number of local governments. And home rule tends to work against those organizations which control population centers; those central cities and older suburbs dominated by partisan machines. Over time, both progressive reform and republican party leaders and organizations found it to their strategic advantage to implement and enforce home rule through the state constitution. Coalitions manipulate constitutional conventions in order to produce a set of favorable rules. At times, structural reform proposals or the threat of holding a constitutional convention, is an effective means for bringing about changes in policy outcomes.

Progressive reformers utilized home rule and other structural changes in order to divide and conquer Jacksonian party machine organizations. Structural reform is generally an effective political strategy for upsetting a status quo coalition, by creating new institutional devices structuring the agenda formation process. Fragmented metropolitan political structures are an intentional by product of the progressive home rule provisions in state constitutions, which were implemented by progressive organizations in order to begin defeating party machines electorally and to gain influence over local policies.

These institutional changes correspond to the dynamics of coalition formation. Structural reforms do not always correlate with economic growth cycles but they may be spurred by various economic organizations. Institutional reformation is proposed by losing coalitions in order to destabilize a winning coalition or to structure a more favorable environment for the losing coalition. The direction and magnitude of institutional change will vary with the relative coalition sizes, the diversity of policy preferences, and the duration of coalition structures.

CHAPTER THREE ENDNOTES

1. Riker, W.H. <u>The Art of Political Manipulation</u>. (New Haven: Yale University Press, 1986), p. ix.

2. Munro, W.B. <u>Municipal Government and Administration</u>. (Vol.I., New York: The Macmillan Company, 1923), p. 129.

3. Wells, R.H. <u>American Local Government</u>. (New York: McGraw-Hill Book Company, 1939), p. 16.

4. Riker (1986: p. ix)

5. Thrap, C. <u>A Manual of City Government</u>. (Ann Arbor: Bureau of Government of the University of Michigan, 1951), p. 30.

6. Ibid., p. 42.

7. "Delray Failed Them," <u>The Detroit Times</u>, 8 June 1905, p. 1.

8. Ibid., p. 1.

9. All of the annexation data in Table 3.1 was obtained from the Michigan Secretary of State's Office, Capitol Building, Lansing Michigan.

10. Conover, W.J. <u>Practical Nonparametric Statistics</u>. (2nd. ed. New York: John Wiley & Sons, 1980), p. 229.

11. Miller, G.J. *Cities by Contract*. (Cambridge, Mass.: The MIT Press, 1981), p. 130.

12. *The State We're In*. (Lansing, Mich.: League of Women Voters of Michigan, August 1979), p. 85.

13. VerBurg, K. et. al. *Report to the Michigan State Boundary Commission on the proposed cities of Burton, Carmen, and Genesee*. (East Lansing, Mich.: Institute for Community Development and Services, Continuing Education Service Michigan State University, February 1970), p. 6.

14. Ibid., p. 138.

15. "Townships Face Annexation Threat," *The Detroit News*. 11 May, 1986. p. 10a.

16. "Charter Township List," Michigan Department of State, Richard A. Austin. Jan 1, 1985.

17. Schiesl, M.J. *The Politics of Efficiency: Municipal Administration and Reform in America from 1880-1920*. (Los Angelos: University of California Press, 1977), p. 85.

18. *Census of Population*, (U.S. Bureau of the Census 1980), vol. 1, pt. 24.

19. Rae, D.W. *The Political Consequences of Electoral Laws*. (New Haven: Yale University Press, 1967), p. 56.

20. Miller (1981: pp. 138-9)

CHAPTER FOUR

A THEORY OF IMPERFECT COMMUNITY COMPETITION

I. The Fragmentation Hypothesis

Metropolitan Competition

Chapter one reviewed the federal structure as it defines vertical and horizontal intergovernmental relationships. Chapter two described the vertical structure of state home rule provisions which generate metropolitan fragmentation. This chapter will explore the competitive nature of horizontal intergovernmental relationships within fragmented metropolitan areas.

Widespread interest in a public choice analysis of the competitive nature of metropolitan fragmentation began with simple exposition of the Tiebout model.[1] However empirical research following the Tiebout model of metropolitan fragmentation has not produced consistent results.[2] Although it is well recognized that community competition affects local public good tax-prices, costs, product quality, and output levels, the evidence linking community competition to metropolitan fragmentation is both inconsistent and incomplete. This chapter argues that state generated metropolitan fragmentation spurs community tax competition to attract resources.

Tiebout's Perfect Competition Hypothesis

Tiebout's general equilibrium model of an economy with local public goods provides an key insight to metropolitan fragmentation. Tiebout hypothesized that "local government represents a sector where the allocation of public goods...,like a general equilibrium solution for a private spatial economy, is the best that can be obtained given preferences and resource endowments."[3] Recent general equilibrium analyses of the Tiebout model show that a general equilibrium exists under perfect community competition, and profit maximization goals for city managers.[4] The Tiebout model solves the free rider problem in a highly restrictive public sector environment.

Will these conditions be satisfied under metropolitan fragmentation? Bish and Ostrom suggest that only "ample" or "sufficient" competition must exist to make local government more responsive and efficient.[5] But ample competition need not imply perfect community competition.

Bish and Ostrom argue that competition comes from four sources: 1) Tiebout "voting with feet", 2) multiple clubs or jurisdictions providing overlapping services, 3) private firm supply of public goods, and 4) entrepreneurial competition for local government leadership.[6] Still, they admit these forms of competition will only "alleviate some of the most adverse consequences of monopoly behavior in the public sector."[7] Monopoly public sector behavior is observed because home rule induced fragmentation generates an imperfectly competitive structure for local government.

Tullock's Imperfect Competition Hypothesis

In <u>Towards a Mathmatics of Politics</u>, Gordon Tullock makes a similar argument about the imperfect nature of political competition.[8] The motivation for applying imperfect competition theory to metropolitan fragmentation is twofold. First, metropolitan fragmentation does not meet the assumption of perfect competition. Second, imperfect competition theory explains the kind of allocational patterns one sees under fragmented metropolitan government. Community competition to provide public goods is imperfect because there exist a small number of communities where each general purpose local government retains a (near) monopoly over service delivery within the community's legal boundaries.

Imperfect competition describes a structure with either a small number of (limited scope) non-interdependent jurisdictions or a large number of communities that each have a monopoly position within their service boundaries. Imperfect competition theory describes an intermediate degree of competition where the number of communities is large enough to preclude strategic interdependence (oligopoly) and small enough to falsify the assumption of perfect competition.[9]

The advantage of an analysis using imperfect competition is that unlike Tiebout's assumption, imperfect competition is a more realistic modeling of the conditions facing metropolitan areas where a large number local governments sustain a degree of monopoly tax-pricing power. Monopolistic competition limits the ability of communities to sustain excessively high intra-community tax prices for services. Imperfect competition in turn predicts the type of public good allocations and community formation patterns one sees in metropolitan areas.

II. An Imperfect Community Competition Theory

Basic Axioms

These basic assumptions produce a very specific kind of community competition applicable to fragmented metropolitan polities. Specifically,

A1: A large number of small communities exist, producing differentiated local public good packages.

A2: City managers and community electorates are non-strategic actors; they cannot enforce compliance with collusive arrangements.

A3: States regulate community entry decisions efficiently. Community jurisdiction patterns are efficient; but each city manager has a limited monopoly pricing and supply position within the community.

Assumptions one through three outline a theory of imperfect community competition. By developing a theoretical basis for understanding the type of community competition induced by metropolitan fragmentation we are able to explain and predict a variety of situations (which will be illustrated in case studies later in the chapter).

The Role of Non-Price Competition

Welfare losses depend on both the levels price and non-price competition. Non-price community competition consists of differentiating local public goods packages. This non-price competition can take one of two forms. First, if consumers have imperfect knowledge of community packages, then city managers may reduce consumer information costs by providing (perhaps biased) advertisements. In this case, local governments spend money to promote various community services.

Second, if consumer-voters have complete information then city managers may (over) differentiate their local public goods package. Each city manager has an incentive to differentiate the local public goods package, in order to rotate a community demand curve up and to the right. This rotation increases losses by wasting resources on slight package differences and by reducing the number of substitute packages.

Imperfect competition theory drawns attention to non-price community competition and the procedures for creating new communities. Efficient community replication probably cannot take place in metropolitan areas, because municipal governments slightly differentiate their local public service packages, and because state procedures for creating new communities are inefficient. Imperfect competition theory "suggests that a lack of price competition among adjacent (communities), when combined with ease of entry, may result in overdiversification and overproliferation of small, high cost (community) jurisdictions."[10]

Social Welfare Costs of Metropolitan Competition

A number of social welfare losses result from imperfect community competition. Welfare losses occur because long run equilibrium tax-prices are above marginal costs. Increasing tax-price competition will not reduce this form of waste. A community's residents could be made better off if the city manager would provide a greater quantity of local public goods. That means long run average costs are not minimized so the aggregate public goods quantity supplied is too low. Therefore resources are underutilized in imperfect community competition equilibrium.

The social costs of metropolitan fragmentation are predict by imperfect competition theory. Metropolitan areas usually contain a large number of communities providing slightly disimilar local service packages at high cost. Failures at the state level to regulate community jurisdiction patterns create incentives for local governments to engage in non-price competition. Product differentiation and excessive tax competition result in the welfare losses associated with imperfect community competition. Increasing community tax-price competition will not any of the alleviate wastes stemming from product overdiversification.

The theory of imperfect competition is a useful way to interpret and understand metropolitan fragmentation. Fragmented metropolitan areas are characterized by community competition to provide jobs and to attract resources. Non-price competition, in the form of product differentiation and advertising (like the "say yes to Michigan" campaign), are becoming increasingly prominant features of state and local politics. In the next section two public laws are described that increased the degree community tax-price competition.

III. The Rules Inducing Tax Competition

Michigan Public Act 198

Tax competition exists under Michigan Public Act 198. The plant rehabilitation and industrial development districts act was passed by the state legislature in 1974. PA 198 "is designed to maintain existing jobs and create new job opportunities for Michigan residents by providing substantial property tax incentives to industry to renovate and expand aging manufactoring plants or to build new plants in Michigan."[11] The purpose is to provide jobs and maintain employment within communities.

The law was not intended to promote tax competition. Yet several recent studies suggest that community tax competition to attract resources and jobs has greatly increased under PA 198. Legislative commitments to extending PA 198 appear to on the wane for a variety of reasons.

PA 198 applies to both obsolete and new industrial plants. The industrial plant facilities eligible are

> "those which primarily manufacture or process goods or materials by physical change. Related facilities, such as offices, engineering, research and development, ware-housing or parts distribution are also eligible for exemption. The exemption applies to buildings, building improvements, machinery, equipment, furniture and fixtures."[12]

The eligibility requirements contain a number of categories. The categories cover a broad spectrum of industrial facilities. And the eligibility requirements have been liberally interpreted by local officials and the state tax commission.

The actual abatement formulas differ for new and obsolete facilities. "For an obsolete plant that is being replaced or restored, the Industrial Facilities Tax is determined like an ad valorem property tax except the assessed value of the plant is <u>frozen at the level of the obsolete facility prior to improvement</u>."[13] The intent is to provide a one hundred percent abatement for improvements on obsolete facilities.

A general analysis of the obsolete tax abatement formula would show that the provision simply grants incentives to make minor plant scale changes or to underwrite marginal production costs. At the same time, firms utilize these provisions to keep older facilities in use longer than they would otherwise without the abatement. Thus the timing of innovation is (probably inefficiently) distorted.

The actual physical location of technological innovation is also distorted since production technologies are constantly changing. Technological innovations occur over time at spatial locations. Presumably technological innovation is least likely to be located in obsolete facilities. Michigan is underwriting marginal production costs in obsolete facilities so that a company can use these resources to pay for innovation in newer plants located in other states.

By definition, if the plant is technologically obsolete, then marginal improvements cannot dramatically increase the profitability of a given facility. Small tax abatement increments cannot drive a sufficient wedge to offset inefficient marginal rates of technical transformation. If marginal changes cannot bring a plant into the 21 century then the state is placing an extremely high value on present jobs (or an extremely low value on future discounted employment).

Only technological innovation located within the state can increase discounted future employment. Yet PA 198 grants a smaller abatement to new industrial facilities. "For a new plant the industrial facilities tax is also determined like the property tax (abatement for obsolete facilities) but only half the millage rate is applied; this amounts to a fifty percent reduction in property taxes on new construction."[14]

For both new and old plant facilities, the tax abatement certificate lasts for up to twelve years. Although there is nothing sacrosant about twelve years, virtually all the abatements have been granted for the full twelve year period. This suggests that the twelve year period is too short for industrial plant investment, the officials misperceive producer factor demands, and that the officials utilize the tax abatement to compete with other communities for mobile resources.

PA 198 mandates that either a rehabilitation or an industrial development district must be created before any tax abatement certificates can be issued. After creating the district, the "applications are filed, reviewed, and approved locally and then are reviewed by the State Tax Commission and the Michigan Department of Commerce; the State Tax Commission grants final approval and issues the exemption certificates."[15]

Michigan Public Act 255

Public Act 255 (1978) and revised Public Act 252 (1983) are no longer in effect. All certificates granted under the act are still in valid. But no new certificates will be granted in the future. The suspension of the Commercial Redevelopment Districts Act followed political charges by state legislators that the act induced destructive community tax competition.

PA 255 was "designed to assist communities in commercial redevelopment efforts by granting tax benefits to companies which rehabilitate obsolete commercial facilities or build new commercial facilities in previously developed areas or areas characterized by obsolete property."[16] Like PA 198 improvements on an obsolete facility were granted a one hundred percent exemption, new or replacement facilities were granted a fifty percent exemption from the ad valorem property tax.

Commercial activities were broadly defined as being "the operation of a commercial business enterprise and other facilities related to them such as offices, engineering, research and development, warehousing, parts distribution, and retail sales."[17] Prior to granting commercial businesses a tax exemption certificate a local jurisdiction had to establish a commercial redevelopment district.

The key difference between PA 198 and PA 255 is the application process. Industrial certificates are scrutinized and subject to veto by both the State Tax Commission and the Department of Commerce. The State Tax Commission can oversee certificates by directly investigating cases, or it can indirectly allow county assessors to report on industrial tax exemptions.

However the application process for commercial certificates was far more decentralized. By decentralizing the application process to local clerks, the tax abatement mechanism resembled a competitive pricing system. Local clerks filed certificates with the State Tax Commission and local assessors <u>after</u> issueing the certificate. State officials received copies of the certificate but could not veto or disapprove exemptions.

The state had only a record keeping function for commercial exemptions. The state records from local reports to the Tax Commission were very incomplete and quite outdated. Many communites failed to comply with the minimal post hoc filing procedures. Furthermore, the remaining files have been destroyed since the commercial tax certificate program has been discontinued. Precise estimates for the projects percentage of community tax base exempted under the Commercial Act (PA 255) are unavailable. The existing commercial tax certificates have been combined with the industrial certificate statistics. Under these circumstances case studies are a useful tool for exhibiting the degree of community tax competition.

The following case studies describe the projects and their dollar figures. The plant act was designed for large scale investment while the commercial act was supposed to be used by core cities to maintain central business districts and by small towns (in rural areas) to attract investment and to promote small Michigan businesses.

IV. Evidence Measuring Community Tax Competition

Detroit

Detroit certificates are listed by project name and dollar figures in Table 4.1.[18] The columns are for existing, investment, replacement, and new facility exemptions. Altogther Detroit has granted 181 certificates as of 1985. The Detroit figures lead the state. Only Grand Rapids (148) and nearby Wyoming (104) are close to Detroit's total number of certificates. The 181 certificates constitute 35% of the new development within Detroit and 11% of the aggregate tax base.

The tax expenditures are fairly reasonable amounts considering the type of project. For instance, $198,550 in existing facilities, and $350,000 in new facilities, were granted a certificate for the Kingsway Department Store. This is a ballpark figure for a city attempting to revitalize shopping within the city limits.

But the $18,000,000 for the Millender Center, the $19,000,000 for the Renaissance Center, the 16,000,000 for the Marquette Office Building, the

TABLE 4.1

DETROIT TAX ABATEMENTS

Company	Existing Facility	Investment	New Facility
New Center			27,500,000
Metro Garage	43,264	200,000	
Brockman Equip.	74,308	77,160	
Henderson Glass			55,000
Renaissance Center			19,000,000
Marquette Blg.	113,900	1,600,000	
A.T.O. Industries	117,500		
Wallick Lumber	628,000	50,000	
Virginia Pk. Comm.			1,300,000
Det. Ball Bearing			996,100
Parker Harris Gr.	17,350	65,000	
Kingsway Dept.	198,550	350,000	
Trappers Alley	169,900	740,000	
Church's Lumber	53,400	175,000	
Atlantis Prop.			292,500
422 W. Congress	26,500	281,180	
Entruspan Corp.	41,000	2,322,500	
E.H. Associates			5,000,000
Millender Center			18,000,000
400 Monroe Ass.	4,500	4,500,000	
Frantera & Sons	26,950	195,000	
Williams Blg. Inv.	34,450	425,000	
Central MCI	117,650	115,000	
GTB. Ass.	46,350	1,750,000	
Livernois-7 mile	30,500	254,500	
Curis Big Boy	84,350	425,000	
DGRS. Holding Co.	249,300	750,000	
Crowley-Milner	144,400	70,100	
G.A.R. Ltd.	14,900	112,500	
New Tech.Dev.	534,400	2,000,000	
Wolverine Mailing	31,700	155,000	
Lopiccolo Bros. Produce			388,900
Stack Wholesale Groc.			400,000
Post Newsweek	102,450	299,050	3,230,850

$27,500,000 for the New Center project, and the $3,630,850 for Post Newsweek Stations (The Detroit News) hardly qualify as small commercial investments. The state legislatures intent was to give metropolitan core areas the ability to attract resources. But the state legislature and the state tax commission did not intend for Detroit (or any other city) to underwrite major community development projects with state certificates.

The shear size of these projects is far beyond the legislature's intent. The number and size of the Detroit projects indicate how central cities already at a resource disadvantage immediately granted commercial certificates for major community development projects. The problem was exacerbated by the national government cutting back on intergovernmental (urban action development) grants.

Flat Rock, Auburn Hills, and Orion Township

Table 4.2 contains the new facility tax exemptions for Flat Rock, Auburn Hills (formerly Pontiac Township), and Orion Township. Flat Rock is located in the far southwestern corner of Wayne County. Auburn Hills, and Orion Township are located next door to each other, and

TABLE 4.2

SUBURBAN INDUSTRIAL and COMMERCIAL DEVELOPMENT

Auburn Hills: New Facilities

1. Longhorn Tool	109,750
2. Multi Precision Detail	318,560
3. Redco Company	426,213
4. Foamade Ind.	1,010,000
5. RE-Steel Center Corp.	489,066
6. Recycled Bugs	64,746
7. Automated Systems	234,000
8. ICI Corp.	281,118
9. Truesell Company	367,143
10. Hydrazorb Company	647,050
11. R&O Mfg. Corp.	836,800
12. Jamco Mfg.	221,500
13. Penisula Plastics	756,000
14. Torca Products	811,890
15. Morrell Inc.	705,578
16. Liberty Paper & Bag	700,000
17. Tru-Mill Enterprises	449,450

Orion Township

1. Sherwood Investment	1,894,200
2. Andrews & Associates	467,500
3. Kay Loreen Printing	1,399,325
4. General Motors Co.	269,373,000
5. Kelsey Hayes	534,000

Flat Rock

Existing	New	
1. Mazda Motors	18,506,670	363,500,000

the central core City of Pontiac, in (suburban Detroit) Oakland County.

Orion Township granted a $269,373,000 plant certificate to the General Motors Company, for locating a modern plant within the township. This certificate amounts to approximately 50% of Orion townships present state equalized value. The plant location within Orion township, thus, represented a 50% increase in state equalized value given the 50% exemption rule for new industrial investment.

Meanwhile nearby Auburn Hills granted 17 certificates for 5.28% of its state equalized value. This percentage does not include the $20,551,000 certificate for the Comerica (banking) office headquarters. The City of Auburn Hills incorporated in 1983 in response to strip annexation threats from the (economically depressed) City of Pontiac. Present Orion Township officials are concerned that Auburn Hills will attempt to strip annex the General Motors Assembly Division within the project area.

In downriver Flat Rock Mazda Motors obtained an $18,506,670 certificate for rehabilitating existing facilities, and a $363,500,000 certificate for investment in a new plant. The Mazda plant exemption represents 81% of Flat Rock's present state equalized value. The remaining 19% is, of course probably greater in absolute value than 100% of the state equalized value prior to the project because of the multiplier effects caused by the Mazda plant location. In addition to jobs being provided to community residents, the Flat Rock tax base is stabilized for the near future.

In each of case a suburban community has willingly exempted a substantial tax base percentage to guarantee future revenue stability. All three communities are located in the competitive fringe areas of metropolitan Detroit.

Both Detroit's and Pontiac's resource bases are affected by this suburbanization of industry. Metropolitan core areas are losing the competition for resources to third-tier minimal cities. With the successful abatement of these major projects central core areas must compete harder to attract investment in new or existing plants. The success of minimal cities hinder future central core efforts.

This success may also prove to be a mixed blessing for these minimal cities. The certificate decisions made by these suburban officials will impact upon both their own and nearby communities' long term resources.

In the short term many public infrastructure goods and services must be provided without the property tax revenue from the plants. Water resource access is a particularly important local public service that community residents must provide for these plants. Suburban officials appear to count on metropolitan water resources which are controlled by the City of Detroit. Detroit officials have quite understandably been reluctant to extend costly water services to competitive metropolitan fringe areas. Since these plant sites involve a large amount of acreage located near Detroit, the communities also lose whatever revenue was previously generated by the land. In some abatement cases this revenue loss is substantial for a small jurisdiction.

Also the long term multiplier effects are often much smaller than anticipated. Community residents may not be the principle beneficiaries of jobs or spillover business. Some Flat Rock officials complained that the Mazda Corporation reneged on an informal agreement to locate parts suppliers in Flat Rock. Instead subsidiary business investment has either occured in other nearby communities or not at all.

Thus suburban officials are involved in large scale industrial decisions affecting public and private resource allocations throughout the metropolitan area. Areas with public infrastructure are becoming blighted centers of underdevelopment at the same time prime agricultural land (without supporting a infrastructure) is being transformed into heavy industry. Rather than stemming the competition for the flow of resources,

State officials intervened on behalf of Mazda to increase the abatement and reduce the guarantees demanded by Flat Rock officials. Even though Michigan authorities were concerned about losing the plant to another state in the Mazda case, one wonders if minimal city officials can effectively negotiate tax agreements for major industrial investments without state bargaining assistance.

Ada Township and Benton Harbor

Ada Township is an urban charter township outside of the city of Grand Rapids. The Grand Rapids area exhibits competition levels similar to the Detroit area even though there are fewer communities. In Kent County 467 industrial and 110 commercial certificates were issued prior to 1985.

The cities of Grand Rapids, Kentwood, Rockford, and Wyoming exempted 9%, 20%, 3%, and 20% of their respective state equalized values. The Amway Corporation headquarters located in Ada township were granted 18 certificates constituting 22% of the township property value.

While Ada township is a part of the rural-suburban fringe of Grand Rapids, Benton Harbor is a depressed core city within a semi-rural county in outstate Michigan. Table 4.3 contains the Benton Harbor project names and tax expenditures. There are 31 certificates amounting to exemptions for 25%

of Benton Harbor's state equalized value.

TABLE 4.3

A CENTRAL CORE CITY IN A RURAL COUNTY

New Facilities in Benton Harbor

1.	Batson Printing Inc.	21,850
2.	F.A. Long	176,250
3.	Harbor Metal Treating	66,417
4.	Krisman Finishing Inc.	139,196
5.	Harbor Metal Treating	492,500
6.	Krisman Finishing Inc.	80,762
7.	MI Fruit Canners	857,428
8.	Quality Packaging Prod.	144,004
9.	Burch Printers	468,869
10.	GM Brass & Aluminum	213,750
11.	Tech Lab. Corp.	112,069
12.	Krisman Finishing Inc.	229,395
13.	United Die Cast	231,989
14.	Harbor Graphics	197,500
15.	Krisman Finishing Inc.	278,500
16.	Al Reco Metals	2,510,000
17.	Wm. Bros. Paper Co.	177,500
18.	Action Garment Rental	290,810
19.	Batson Printing	88,527
20.	Whirlpool Inc.	2,776,375
21.	Burch Printers	417,884
22.	Triax Tube Co.	125,000
23.	MI Fruit Canners	1,021,393
24.	Graphic Services	34,700
25.	Sumitec Inc.	1,072,728
26.	L.P.I. Corp.	164,500
27.	L. Martin Bros. Mill	317,500
28.	Burch Inc.	700,501
29.	Whirlpool	1,680,708
30.	Sumitec	598,765

Nearby Benton township granted 34 industrial certificates and one commercial certificate. The City of St. Joseph granted 12 industrial and 2 commercial certificates. Berrien County is essentially a rural-small town area yet fully 200 industrial certificates and 53 commercial certificates were issued within the county. Berrien County issued more certificates than Macomb County in suburban Detroit.

Case Study Summary

All communities in Michigan are tax competing to one degree under these Public Acts 195 and 255. Rural Berrien County tax competition is as fierce and extensive as that within parts of the metropolitan Detroit area. Central cities, suburban cities, and the rural-small town metropolitan fringe communities are all using the industrial and commercial certificates to attract (future) resources.

The central core cities tend to grant a very large number of certificates. In Detroit's case, the certificates tend to be for central business district, rather than neighborhood business, development. The central core cities exempt smaller aggregate percentages than suburban cities. But the percentage of new growth exempted from taxes is far higher in central cities.

Newer suburban communities used commercial exemptions more than industrial certificates. For instance, Taylor spent $500,000 for Taylortown Shopping Center and over $900,000 for Eureka-75 Plaza. Another Detroit suburb, Livonia, exempted over $9,000,000 to the Wonderland Shopping Mall. Suburban shopping centers and mall developments received a great deal of commercial certificate action. These particular tax exemptions were cited by state legislators as reasons for discontinuing the commercial act. The commercial act was intended to assist central business districts yet these mall projects contribute to the further deterioration of central business district shopping.

The rural or small town fringe tends to grant a small number of abatements but the abatements tend to be for large industrial development.

Townships, charter townships, and small cities (like Flat Rock) are granting large plant exemptions. These home rule jurisdictions have the highest aggregate percentage of state equalized value exempted. A hidden consequence of this competitive process is that the highest cost producers of public goods and services are effectively those being required to make the greatest absolute and relative infrastructure commitments over time while central core city's infrastructure become more and more underutilized.

V. Further Analysis of Community Tax Competition Metropolitan Detroit

The case studies suggest some general patterns of community tax competition. Table 4.4, Table 4.5, and Table 4.6 contain the aggregate percentage of state equalized value exempted for all cities, charter townships, and townships in the metropolitan Detroit area. The communities are grouped by county and the degree of home rule.

The average percentage is 6%; the standard deviation equals 12%; and, the values range from 0 to 81%. Charter townships are listed first, cities second, then rural townships and villages. There are one hundred and seventeen communities in the sample. The degree of home rule is important because community monopoly pricing power is constrained by state home rule limitations.

When population change and contiguity with Detroit are controlled for less than 7% of the tax exemption variation is explained. After controlling for population change and proximity to Detroit the statistical relationship between percentage black and the percent community tax base abatement is significant at the .05. The partial correlation between percentage black and percentage tax exemption is .18.

The partial correlation between a community's percentage black and aggregate tax exemption percentage is likely to occur only five times out of one-hundred by chance yet the statistical explanatory power of this variable is quite low. The variations in aggregate tax exemption percentages for the metropolitan Detroit area are not explained

TABLE 4.4

WAYNE COUNTY TAX EXEMPTION PERCENT

Townships	Percentage
Canton	2.26
Grosse Isle	.74
Northville	.70
Plymouth	7.35
Redford	4.63
Van Buren	6.64
Cities	
Dearborn	21.70
Detroit	10.58
Ecorse	36.19
Flat Rock	81.04
Garden City	.63
Hamtramck	25.12
Highland Park	7.30
Inkster	.29
Lincoln Park	1.71
Livonia	18.04
Melvindale	6.98
Northville	.26
Plymouth	.11
River Rouge	19.49
Rockwood	6.46
Romulus	30.09
Southgate	1.60
Taylor	2.11
Trenton	23.51
Wayne	3.83
Westland	1.50
Woodhaven	8.06
Wyandotte	9.52

TABLE 4.5

OAKLAND COUNTY TAX EXEMPTION PERCENT

Townships	Percentage
Commerce	1.15
Highland	.46
Holly	.25
Milford	11.91
Orion	52.88
Oxford	4.47
Royal Oak	.71
Springfield	.49
Waterford	.93
Cities	
Auburn Hills	5.28
Farmington	.36
Ferndale	2.64
Hazel Park	.61
Madison Heights	.80
Oak Park	2.75
Pontiac	26.45
Rochester	16.17
Rochester Hills	5.98
Royal Oak	1.61
South Lyon	30.27
Southfield	.02
Troy	1.64
Wixom	26.21
Holly Village	1.28
Leonard Village	9.16
Oxford	11.10

TABLE 4.6

MACOMB COUNTY TAX EXEMPTION PERCENT

Townships	Percentage
Bruce	5.63
Chesterfield	4.08
Clinton	1.73
Harrison	4.22
Macomb	10.59
Richmond	.45
Washington	.39
Cities	
Centerline	4.65
East Detroit	.37
Fraser	20.79
Mount Clemens	3.09
New Baltimore	.93
Richmond	3.56
Roseville	.76
Sterling Heights	25.87
Warren	14.85
Armada Township	1.25
New Haven Village	19.90
Romeo Village	9.34

by socio-economic differences between communities. Since all communities are using certificates to increase and to maintain state equalized (property) value, tax competition is invariant with respect to socio-economic differences.

Indicators measuring the internal social economic status and racial composition of the community were statistically unrelated to the tax exemption percentage measure. Recalling the case study results, suburban communities often have higher aggregate percentage tax exemptions in relation to central core cities. The key variable is proximity to other communities utilizing these public act to attract resources. Clearly further study of the empirical correlations between tax exemption percentage and internal community stratification patterns is neccessary.

Surprisingly even constitutional limitations on local governments pricing power is uncorrelated with tax abatement variations. The classifications of home rule are statistically unrelated to tax exemption percentages. There are no significant differences in mean percentage exemptions between cities, charter townships, and rural townships. When rural and charter townships are combined, and compared to city percentages, there is still no significant difference between the average percentage exemption.

Given these results, we can infer that state constitutional limitation do not serve to constrain the competitive inclinations of local governments. Once nearby communities begin utilizing abatement programs, all the communities in the area must compete or lose (existing and new) resources. State exhortations to discontinue the more excessive local practices cannot be enforced after some communities are rewarded with long term private sector resource investments. Direct state control of the tax-pricing mechanism also fails to the extent Michigan is competing with other states for resources.

The State of Michigan

The results obtained in metropolitan Detroit generalize to a sample of 162 communities throughout the State of Michigan. The degree of home rule varies slightly with tax abatement percent competition. Cities are positively related to higher tax exemption percentages while rural townships are negatively related to tax exemption percentages. Again, however, the correlation is statistically insignificant.

Even nominal community tax rates are statistically unrelated to total property tax abatement percentages. The simple correlation between nominal tax rates and tax exemption percentages is only .15 meaning that as nominal tax rates increase the exemption percentage increases slightly.

Interestingly enough, the simple correlations between tax base abatement percentages and percentage of new growth and per capita value of abatements are .81 and .85. These are very high correlations for cross sectional indicators. But the correlations are not surprising because the indicators are essentially measuring the same concept: the degree of tax competition. Furthermore we can infer from this high correlation that the degree of competition is highest for future rather than present resources.

The present success of suburban communities attracting new resources with tax abatements suggests the long term difficulties confronting metropolitan core cities. Core cities are losing the battle slowly to maintain existing (outdated) resources while the competition for new resources is being decisively won by the low tax minimal city fringe areas. The resource limitations facing Detroit, Benton Harbor, and even Grand Rapids is likely to get worse in the near future before things get better, unless the State of Michigan copiously regulates the destructive aspects of community tax competition.

VI. Policy Implications

Past research has produced inconsistent empirical analysis because it has often (implicitely) assumed perfect community competition. Because the provision of local public goods is associated with some degree of monopoly power, a perfectly competitive metropolitan structure is impossible. The theory of imperfect competition is a more accurate representation of horizontal metropolitan relationships. Based on the evidence presented future studies of metropolitan fragmentation should assume imperfect competition.

Imperfect competition theory provides an important insight into why metropolitan fragmentation fails to achieve either the progressive reform or public choice efficiency goal. At one extreme, consolidation creates administrative, representation, and service delivery inefficiencies. On the other extreme, fragmentation leads to oddly shaped service districts, spillover effects, and area-wide welfare losses.

The public choice thesis that fragmentation induced competition results in social welfare gains is incorrect in the sense that nonprice competition or local public good differentiation is as important as tax-price competition. The range of local service packages is the primary way communities compete. Product differentiation is a largely ignored form of community competition. The fragmentation thesis does not emphasize the diversity of local public good packages, even though all communities' packages differ to some degree.

Tax-price competition is a major constraint upon local policy making. In Michigan central cities began abating large community development projects. At the same time core cities attempted to revitalize central business districts, suburban communities utilized exemptions for shopping mall developments. One recent study estimates that 37% of the state equalized new value had been exempted from local property tax bases.

The aggregate tax base exemption percentage can be used as a valuable measurement of community tax competition. It can be inferred from this measure that the industrial and commercial development acts promoted tax competition between communities to attract resources. The fact that the Michigan State Legislature passed and then repealed the Commercial Revelopment Act is evidence that state officials recognize such tax competition as destructive.

Future redevelopment efforts should be cautious not to promote tax competition in an effort to attract resources. Increased tax competition will not remove the waste associated with metropolitan fragmentation. To the contrary tax competition leads to high abatement percentages without the desired effect of attracting resources.

CHAPTER FOUR ENDNOTES

1. Tiebout, C.M. "A Pure Theory of Local Expenditures," Journal of Political Economy., Oct. 1956, 64 pp. 416-424.

2. Schneider, M. "Fragmentation and the growth of local government," Public Choice., 1986, 48 pp. 255-263.

3. Tiebout, p. 424.

4. Bewley, T. "A Critique of Tiebout's Theory of Local Public Expenditures," Econometrica., 1981, 49 pp. 713-739.

5. Bish, R. and V. Ostrom. Understanding Urban Government: Metropolitan Reform Reconsidered. (Washington D.C.: American Enterprise Institute for Policy Research, Domestic Affairs Study 20, 1973), p. 31.

6. Bish and Ostrom, pp. 30-31.

7. Bish and Ostrom, pp. 53-55.

8. Tullock, G. Towards a Mathmatics of Politics. (Ann Arbor, Michigan.: University of Michigan Press, 1967), chapter 6.

9. Chamberlain, E. The Theory of Monopolistic Competition (8th. ed., Cambridge, Mass.: Harvard University Press, 1962).

10. McGuire, M. "Group Segregation and Optimal Jurisdictions," Journal of Political Economy., Jan/Feb. 1974, 82, p. 130. (112-132)

11. Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Plant Rehabilitation and Industrial Development Districts Law of 1974. (2nd. ed., Lansing, Mich.: State of Michigan Printing Office, 1984). p. 1.

12. Ibid., p. 6.

13. Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Plant Rehabilitation and Industrial Development Districts Law of 1974. (1st. ed., Lansing, Mich.: State of Michigan Printing Office, 1984). p. 1.

14. Ibid., p. 1.

15. Ibid., p. 8.

16. Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Commercial Development Districts Law of 1977. (1st. ed., Lansing, Mich.: State of Michigan Printing Office, 1984). p. 1.

17. Ibid., p. 3.

18. All of the statistical information contained in TABLE 4.1, TABLE 4.2, TABLE 4.3, TABLE 4.4, TABLE 4.5, and TABLE 4.6 were obtained from unpublished State of Michigan Tax Commission documents.

CHAPTER FIVE

STATE ECONOMIC DEVELOPMENT POLICY CHOICES

I. Community Development Policy

Development policy increases the value of a community's factors of production: land, labor, and capitol. By increasing factor values, development policy increases the size of a local economy. Private sector growth has been the major emphasis of state policy.

State government uses development policies as incentives for attracting new and expanding existing community resources. By increasing the values of factors of production, "developmental policies enhance the (strategic) economic position of a community in its competition with others" for scarce resources.[1] Developmental policies

> "strengthen the local economy, enhance the local tax base, and generate additional resources that can be used for the community's welfare .... developmental policies enhance the local economy because their positive economic effects are greater than their cost to community residents...but in return for costs, the community may gain new employment opportunities, increased demand for locally provided services, increased land values, and higher local government tax revenues."[2]

Development policies increase the value of factors of production, by decreasing factor prices. Development policy tools have communities underwriting market costs of production. By decreasing market costs of production, or increasing factor values, development policy increases productivity. Increasing productivity increases the size of local market; by adopting development policies, communities are attempting to (re)develop the local economic structure.

Infrastructure or productivity growth generates the results cited above. These positive economic results are the intent of development policy. Development policy is a hybrid public policy type.

Public policies are grouped into three general types: allocational, (re)distributional, and stabilization. These types are differentiated on the basis of policy goals. Allocational policies achieve efficiency goals; distributional policies satisfy equity goals; and, stabilization policies accomplish stability objectives.[3] Development policy is a hybrid public policy type because developmental policy objectives simultaneously attain equity and efficiency goals.

II. A Development Policy Typology

Development policy attains equity and efficiency goals, as both allocational and distributional policy; but developmental policy represents a distinct category.[4] How can we distinguish development policy from allocational and distributional policies? Figure three illustrates a development policy typology. Development policy choices are divided into two classifications and four subclassifications. These classifications are based upon the degree of state intervention. Government intervention may be direct or indirect.

Direct government intervention measures state efforts to manage development policy. These development policies are further divided between regulatory and public production policies. In the next four subsections, I will describe each development policy classification.

FIGURE 5.1
A STATE DEVELOPMENT POLICY TYPOLOGY

DIRECT STATE INTERVENTION
Public Production

Physical Improvements
Public Infrastructures
Land Banking
Highways and Transportation
Speculative Building and Construction
Business Councils and EDCs
Management and Labor Training Programs
Marketing Studies
Site Selection and Location Assistance
Research and Development Funding

Regulatory Provision

Licensing and Permitting
Labor Laws
Land Use and Zoning Ordinances

MARKET INCENTIVES
Tax Incentives

Investment Exemptions
Employment Exemptions
Property Tax Abatements
Technological Invention and Innovation Credits

Expenditure Incentives

Direct Subsidies
Loan Guarantees
Industrial Revenue Bonds and Grants
Equity Financing

Direct State Intervention

Regulatory policies contain licensing, permitting, land use and zoning, and labor regulations. State regulations increase productivity by relaxing standards, decreasing factor costs, forming beneficial property rights, or reducing entry barriers. These policies increase market productivity through directly regulating factor values and costs.

Factor values are raised from direct state management of development policies. Public production policies include physical improvements, public infrastructure, business councils and consulting, and research and development. Some public infrastructure items are highways, sewers, transportation, school buildings, and other site improvements. Economic development corporations provide centralized assistance and consulting services to businesses through: management and labor training programs, marketing research, and location selection studies. These public production efforts increase factor values by: a) lowering firm location search costs, b) increasing land and labor skills, c) providing seed money for risky long-term projects, and d) underwriting high fixed market entry cost decisions.

Direct state intervention policies differ greatly from indirect market incentives. Market incentives attempt to drive a wedge between competitive market factor costs and prices. Factor distortions are utilized to promote state development policy goals.

Indirect State Intervention: Market Incentives

Market incentives are subcategories into tax and expenditure policies. Of all four subclassifications, tax structures are the most important development policy tool, because

> "virtually all for-profit enterprises pay some form of state and local taxes. Depending on the state, the type of firm, and its financial status, a firm is potentially subject to business income taxes, property taxes on land and structures and in some states, on equipment and inventories, sales and use taxes, excise taxes, license fees, and payroll taxes. Abatements, exemptions, and moratoriums on any of these taxes are (market) incentives to firms. From the firm's perspective, however, the greatest tax incentive is the absence of a tax."[5]

Given the presence of a tax, a tax incentive can be used like a programmatic expenditure. A tax expenditure "refers to the fact that many of the provisions of the United States tax laws are intended, not as necessary structural parts of a normative tax, but rather as tax incentives or hardship relief provisions; these provisions are thus really spending measures."[6]

Tax structures can promote economic growth by their absence or presence. When taxes are present, state's may use tax incentives or subsidies to increase productivity. Productivity increases in land, capitol, or labor result from these tax "expenditures". Tax policy becomes an expenditure on development. Development tax incentives come in several forms: tax abatements, exemptions, deductions, or moratoriums. Various provisions influence firm employment, investment, and location decisions.

Firm employment decisions are particularly important to state officials, because "most states place a high priority on the creation of new jobs for instate residents. Often, the credit applies to the corporate income or equivalent tax. The amount of credit is usually determined as a flat amount per new employee or as a percentage of the wages paid new employees for a limited start-up period."[7]

Job creation tax incentives are spending measures to increase new and existing employment opportunities for state residents.

In contrast, state businesses benefit from investment tax credits. Investment tax credits increase entrepreneurial activities; the investment "credit may cover the costs of purchase or construction of a new plant and equipment expenses aimed at research and development, the modernization of a company's facilities, or other expenses designated by the state's tax code."[8] Investment tax credits encourage capitol investment by giving firms tax bill relief for specific actions resulting in productivity growth.

Similar policy actions constitute property tax bill relief. Since local government is reliant upon property tax revenues, property tax incentives greatly effect state to city intergovernmental relationships. Table 5.1 below describes state property tax abatement policies in sixteen states. Property tax bill relief is most systematic in these sixteen states.

TABLE 5.1

PROPERTY TAX BILL INCENTIVES FOR BUSINESS

State	Agent	Max. Yrs.	Voter App.	Eligible Recipients
Florida	Both	10	Y	ind. and comm.
Illinois	Local	10	N	industrial
Iowa	Both	5	N	industrial
Michigan	Both	12	N	ind. and comm.
Louisana	State	10	N	industrial
Miss.	Both	10	N	ind. and comm.
Montana	Both	10/5	N	industrial
N.Jersey	Both	5	N	ind. and comm.
New York	Local	10	N	ind. and comm.
N.Dakota	Both	5	N	industrial
Oklahoma	Both	5	N	industrial
Tenn.	Local	10	N	ind. and comm.
R.I.	Local	10	N	ind. and comm.
S.C.	Local	5	N	industrial
S.Dakota	Local	5	N	ind. and comm.
Vermont	Local	10	N	industrial

In Table 5.1, the first column lists the principle institutional agent handling tax abatement; the list also describes whether state government officials must approve local tax abatements. In eleven of sixteen cases, local governments conduct property tax abatement policies without direct state supervision.

The next column lists the maximum number of abatement years feasible. All sixteen states limit abatement periods to a maximum of ten years.

Property tax abatements allow either tax rate percentage or total tax bill reductions. These reduction provision forms take into account the fixing and maintenance of: a) the value of real and personal property, b) the tax rates, c) the total tax bill, and d) the discounting of a), b) and c) over a specific time period. The discounting provision can involve any single property tax aspect; or, discounting may involve one or more provision simultaneously. Property tax abatements constitute a specific package of tax stabilization provisions for the firm.

Property tax abatement influence on business decisions are limited by administrative procedures. Only Florida and Vermont require voter approval of tax abatements. Eight states grant property tax abatements for both industrial and commercial firms; recipients are defined by the standard industrial classfication code (SIC).[9] New York, North Dakota, and Rhode Island abate taxes on land (real property). Oklahoma and Pennsylvania abate taxes on property improvements. Illinois, Iowa, and Michigan abate taxes on manufacturing facilities.

Several states distinguish between new and existing firms; existing firms receive abatements for expanding operations. North Dakota requires "new businesses must create jobs for in-state workers (where) ...the business must: a) not compete unfairly with other existing businesses, b) meet state and local pollution guidelines, c) not create a burden for the taxing district or other property owners, d) have reasonable expectations for continued existence, and e) apply for the abatement prior to the beginning of construction."[10]

North Dakota's criteria are very specific, while Louisiana's eligibility are quite general. Louisiana abates industrial buildings, equipment, machinery, real property, and other improvements. Administrative procedures for voter approval, recipient eligibility, and project eligibility define the variations across states. States vary from quite general to specific procedures (and criteria) for administering property tax abatements.

Tax incentives are the major policy tool for promoting community development. Community development policy expenditures also promote economic growth. Market growth takes place with less conventional development expenditures. Community expenditures take the form of grants, bonds, and loans. Like tax incentives, these subsidies create positive factor market distortions. Both tax and subsidy policies cause distortions to attract new and to improve existing land, labor, and capitol resources.

A Description of Policy Choices

Figure Two contains a list of all development policy choices used in this study. Since state policies are very recent, little comparative analysis has been undertaken at the state level. The policy typology is a useful way to describe various development policies.

There are six expenditure policies in Figure Two: state industrial bonds, industrial revenue bonds and grants, umbrella bonds for small business projects, loan guarantees, equity venture financing, and free enterprise zones. These six expenditure policies constitute public enterprise; public enterprise refers to situations where government takes on a private entrepreneurial role. Public enterprise underwrites long term projects, risky ventures, location costs, information search costs, transportation costs, fixed costs, high entry costs, and a myriad of other business costs which provide positive social benefits.

Positive social benefits, or positive producer-consumer externalities, are not taken into account under competitive market behavior. Competitive firms produce less than the socially desirable outcome, because they do not benefit from producing the positive externality. In these situations, public enterprise organizations (economic development corporations) or public expenditure

FIGURE 5.2

STATE DEVELOPMENT POLICY CHOICES

DIRECT STATE INTERVENTION

Public Production

FEZ	Free Enterprise Zones
PDC	Private Development Corporations
CIT	Customized Industrial Training
RD	Research and Development Assistance
IPD	Industrial Park Development
IPP	Industrial Park Planning and Site Selection

Regulatory Provision

SLU	State Land Use Planning
SCZ	State Coordination of Local Zoning Ordinances
RWL	Rights to Work Laws
HRC	Human Rights Commission
FEP	Fair Employment Practices Act

MARKET INCENTIVES

Tax Incentives

ITC	Investment Tax Credits
JTC	Job Creation Tax Credits
PTA	Property Tax Abatements

Expenditure Incentives

SIB	State Issued Industrial Revenue Bonds
DSL	Direct State Loan Guarantees
IRG	Industrial Revenue Bond Guarantees
UB	Umbrella Bonds (General Obligation)

policies (bonds, grants, loans) reward firms that produce socially beneficial externalities.

III. Model Specification

Aggregate Expenditure Decisions

In traditional budgetary models, expenditures are regressed on fiscal capacity, political, and need variables. Equation one represents the

EQ 1: $E = C + B1*(I) + B2*(A) + Bi[Zi] + U$

traditional approach. In equation one, E represents state expenditures. I stands for income. Income is measured per capita, and as median individual or family income. A is intergovernmental aid received from the national government. Income and Aid measure a state's fiscal capacity.

Fiscal capacity determines a community's budget. Income measures a state's ability to pay for different policies. Income and aid measures proxy for a community wealth; and, these measures separate own from transfer income influences on expenditure decisions.

The political science and economic literatures find that fiscal capacity measures are highly related to expenditure policy decisions. Fiscal capacity resource measures statistically explain policy choices.[11] There is a great deal less evidence demonstrating the significance of political variables on expenditure decisions.

Zi is a vector of need or political variables. The inclusion (or exclusion) of any specific measure is usually ad hoc. The significance of need and political variables differs across policy areas. Generally, political variables are less significant than fiscal capacity measures; and, they do not exhibit consistent patterns across expenditure decisions.

The approach used here differs from the traditional expenditure model. I focus on a qualitative decision or policy choice, rather than an aggregate quantitative expenditure decision. Initiating decisions often create more visible political disputes than aggregate year to year public budgeting changes.

However, the policy choice model presented here is comparable to the traditional expenditure decision model. This facilitates easy comparison with traditional approaches, even though the statistical methodologies differ.

Community Policy Choices

For comparative purposes, recall the state expenditure function model specified in equation one. The specification of my discrete policy choice model closely follows equation one. To contrast equation one with equation two below, understand that expenditure decisions are continuous, rather than discrete, policy choices.

The influence of political variables on total expenditure decisions is often slight relative to economic determinants. Marginal expenditure decisions, and all-or-nothing discrete choices, should exhibit a greater degree of political process influence. Equation two specifies the discrete policy choice model used here.

EQ 2: $PC = C + P1*(I) + P2*(A) + P3*(Zi)$

Like the expenditure decision model, I and A measure the community budget line. I is personal income per capita. This measures own income, or a state's wealth.

A measures transfer income, or exogenous aid. Two measures are utilized: aid per capita, and federal tax to expenditure ratio. Aid per capita measures gross federal to state income transfers. The latter measures the ratio of taxes paid by state residents to federal spending within the state. Z_i measures various need and political variables.

Fiscal and Political Models of Development Policy

Development policy choices are a function of preferences and resources; or,

Eq. 3: Qualitative Welfare Decision = F(Preferences, Resources)

Fiscal federalism models differ from political federalism models by specifying different functional relationships. I will now specify one fiscal federal and three political federalism models.

Fiscal federal theory implies equation four:

Eq. 4: Policy Choice = W [Need, Resources]

Policy choices are determined by need and resources. W stands for the national welfare function; the national welfare function contains information about individual preferences, distributional rankings, and a budget line. The budget line or resources limit policy choices to a feasible set of alternatives. The alternatives are very simple zero or one, adopt or not adopt, qualitative policy choices.

I use three variables to measure need: 1) the black percentage of a state's population, 2) the state's population percentage below federal poverty standards, and 3) the state's population percentage poor below the federal income definition. While imperfect, these are standard measures of a state "need". This functional specification in equation four represents the unitary model of community policy making.[12]

We will now develop and then test alternative political federalism models against the fiscal federal unitary model. Three models, a median voter model, a dominant party model, and a regulatory model are specified below in equations 5,6,7:

Eq. 5: Policy Choice = W [A Median Voter's Preferences, A Median Voter's Resources]

Eq. 6: Policy Choice = W [Dominant Party Preferences, Resources]

Eq. 7: Policy Choice = W [Organized Group Preferences, Resources]

Each equation specifies the policy choice as a welfare function of preferences and resources. The general functional form, listed in figure two under political federalism, is contained in equation eight: Eq. 8: Policy Choice = W [C {U}, Resources]

In equation five, community welfare is defined by the median of the community polity's electorate. The median voter tastes are measured as revealed preferences, by using an index measuring the median tax bill for state residents. The median tax bill is constructed by multiplying the income tax rate for the state's median family income times median family income; this median income tax bill is added to the estimated median state sales taxes paid contained in the 1985 1040 federal tax form.[13] The median tax bill estimates a median voter's policy preferences. The median voter model specifies a policy choice as a function of the median tax bill, median family income, and population.[14]

In equation six, I model community policy choices as a function of resources and the dominant party or the policy agenda setting party within the community. Dominant community party's are measured three ways: 1) the Ranney party competition index, 2) the 1982 Democratic state legislative party seat share, and 3) the state's average 1982 Congressional Democratic candidate vote percentage. Since state political party systems vary across the policy spectrum, I will also use the state's average 1982-84 Congressional ADA (American's for Democratic Action) policy rating to control for state ideological differences. The dominant party model specifies the development policy choice as a function of dominant party strength and community resources.

Finally, policy choices are sometimes regulations, instead of fiscal policies. Regulations are designed and implemented to favor some coalitions over others.[15] These coalitions organize into groups; groups influence state electoral and party system decision making.

Community development policy choices can be viewed as regulations to favor pro-business groups. State interest group strength is measured by 1) the state's percentage labor union membership, 2) the state's average 1982-84 Congressional COC (Chamber of Commerce) policy rating, 3) the Morehouse index for state interest group strength, and 4) local republican and democratic party organization indices.[16] Thus, the regulatory model specifies community policy decisions (regulations) as a function of interest group organizational strength, and community resources.

Four models are derived from fiscal and political federal theories. The unitary model is derived from fiscal federalism; the unitary model represents the conventional, need and fiscal capacity, welfare economic approach to explaining community policy choices. The unitary model utilizes a single national welfare function to make policy choices; community policy choices are specified as functions of need and resource or fiscal capacity variables.

The median voter, dominant party, and

regulatory policy models are derived from political federalism. Political federalism assigns each community welfare function; each community is allowed to pursue equity and efficiency policy goals. Political federalism hierarchically aggregates community welfare functions into social policy choices. At the community level, policy choices are specified as functions of (individual, political party, group) preferences and resources or fiscal capacity measures.

IV. Research Design

The Estimation Technique

Community development policy choices are limited dependent variables. Policy choices are limited dependent variables because they represent all or nothing welfare judgements. The problems with limited dependent variables are well documented.[17] Several statistical models exist to estimate equations with discrete dependent variables.

Equations five, six, and seven above represent situations where such a statistical model is necessary; each equation specifies a discrete choice as a function of several variables. The utility framework for using a normal probability curve is also well documented.[18] I use a normal probability curve for transforming the discrete policy choice variable; this transformation is the probit statistical model.[19]

The Hypothesized Relationships

Federal aid and personal income per capita are indicators of a state's resource or wealth base. Increases in own or transfer resources increase the community budget line. The greater the community budget line, from internal or external sources, the less need for development policy. A need based development interpretation suggests richer communities have less need for promoting development. Development choices are hypothesized to be either unrelated or negatively related to resources:

H1: Increases in transfer (federal aid) income decrease the likelihood of adopting development policy choices.

H2: Increases in own (personal) income decrease the likelihood of adopting development policies.

Resource wealthy communities are less likely to need, and therefore adopt, development policies. Conversely, poorer communities should be more likely to pursue development policies. Thus, a negative relationship between community resources and the likelihood of pursuing development policies is implied.

The median voter, dominant party, and regulatory policy models all contain revealed preference measures. The median voter model uses a direct indicator to measure the median voter's revealed policy preferences. The dominant party and regulatory models use indirect indicators measuring party and pressure group organizational strength.

If development policies increase community welfare, then the community will adopt the policy. Increases in policy preferences increase the likelihood of adopting development policies. Thus,

H3: Increases in the median voter's tax bill decrease of likelihood of adopting development policy choices.

H4: Increases in community need increase the likelihood of adopting development policies.

H5: Increases in dominant party strength increase the likelihood of adopting development policies.

H6: Increases in pro-business organization strength increase the likelihood of adopting favorable development policy regulations.

A positive relationship between policy preferences and the likelihood of pursuing development policies is implied.

V. The Results

Estimated Equations

Six estimated equations are presented in Table 5.2 below. The development policy choices are customized industrial training {CIT}, state industrial bonds {SIB}, free enterprise zone {FEZ}, investment tax credits {ITC}, job creation tax credits {JTC}, and property tax abatements {PTA}. The probit coefficients are maximum likelihood estimates. The maximum likelihood estimate divided by its standard error is asymptotically equal to a t-distribution with forty eight degrees of freedom.[20] T statistics are noted in parens below the probit coefficients for statistically significant estimates.

In the free enterprise zone equation, we reject the null hypothesis that personal income per capita is unrelated to the likelihood of adopting free enterprise zone legislation. However, notice that the coefficient is positive. Unlike H2 above, increases in personal income (community resources) increase the likelihood of adopting the development policy. The personal income coefficient is positive in five of the six probit equations.

We can reject, at the .05 level, the null hypothesis that federal aid per capita is unrelated to the likelihood of adopting investment tax credits. The federal aid per capita coefficient is positive in all six estimated equations. As federal aid increases, the likelihood of adopting development policies increases.

Therefore, the evidence confirms an interesting preliminary result. As the community resources increase, the community is more likely to adopt development policies. The evidence runs counter to substantive hypotheses one and two above. The greater the community budget line, the greater the

TABLE 5.2

ESTIMATED STATE DEVELOPMENT POLICY CHOICES

CUSTOMIZED INDUSTRIAL TRAINING=
-.04 - .002*PIN + .003*FAN - 1.13*DSL% + 28.22*BLK%
R = .87 X = 19.59 [.01]
Rc = .45

FREE ENTERPRIZE ZONES=
-3.18 + .004*PIN + .005*FAN - 2.29*PCI - 5.55*LUM
(2.33)*
R = .41 X = 12.16 [.02]
Rc = .46

STATE ISSUED INDUSTRIAL BONDS=
-7.81 + .003*PIN + .006*FAN - 2.37*BLK% + 5.4*LUM
R = .65 X = 29.65 [.001]
Rc = .66

INVESTMENT TAX CREDITS=
-2.43 + .0004*PIN + .007*FAN - 2.66*PCI + 5.67*LUM
(2.05) (-2.17) (2.08)
R = .39 X = 13.84 [.01]
Rc = .49

JOB CREATION TAX CREDITS=
-2.6 + .003*PIN + .0004*FAN - 5.96*POV

+ .0004*MTB - 1.54*PCI - .02*ADA
R = .41 X = 13.62 [.05]
Rc = .25

PROPERTY TAX ABATEMENT =
-3.23 + .0008*PIN + .005*FAN - .001*MPV + 1.6*DSL%
(2.78)
+ 2.55*ADA
(2.12)

R = .55 X = 16.96 [.01]

chances of adopting development policies. Development policies are positively, instead of negatively, related to resource or fiscal capacity measures.

The party competition index, and percentage labor union membership are statistically significant in the investment tax credit equation. Increasing party competition decreases the likelihood of adopting investment tax credits; also, increasing labor union membership percent increases the likelihood of adopting investment tax credits.

Notice that party dominance and group organization levels are statistically related to investment tax credit adopting. Increasing party competition is negatively related to development policy choices. Greater party competition is negatively associated with passing development policies. In comparison, labor organization strength is positively related to investment tax credits and state industrial bond policy choices; but it is negatively related to free enterprise zone legislation.

In the property tax abatement equation, both the ADA policy rating and median tax bill are statistically associated with property tax abatement choices. The ADA rating is positively related to adopting property tax abatement choices, while the median tax bill is negatively related tax abatement policy choices. As the median tax bill increases, the likelihood of a state adopting property tax abatement legislation decreases.

Goodness of Fit Measures

The chi-square statistic enables us to test for the existence of a statistical relationship between the set of independent variables and the dependent variable. Interpretation of the chi-square statistic is analogous to an F-test in multiple regression analysis. The significance level is obtained by comparing two times the log of the likelihood function to theoretical chi-square distribution with the appropriate degrees of freedom. Degrees of freedom equal the number of coefficients to be estimated minus one; the degrees of freedom equal the number of independent variables in the probit equation.

The set of coefficients in the free enterprise zone equation are significant at the .02 level. The estimated r-square is equal to .41, indicating a moderate goodness of fit. The rank order correlation between predicted (or estimated) values and actual values of the free enterprise dependent variable is equal to .46. Finally, notice that the free enterprise is balanced between correct one and zero predictions. The statistical relationship between free enterprise zones, (as a function of resources, party competition, and labor union membership percentage), correctly predicts 73% of the policy choices. Seventy-three percent of the free enterprise decisions are accurately predicted.

The set of coefficients in the customized industrial training equation are significant at the .01 level. The estimated r-square is equal to .87, indicating a very strong goodness of fit. The rank order correlation between predicted (or estimated) values and actual values of the customized industrial training dependent variable is equal to .45. Customized industrial training is statistically associated with percentage black of a state's population, own and transfer income resources, and Democratic state legislative party seat composition. Customized industrial training is a function of resources, need, and dominant party strength; this statistical functional relationship accurately predicts 81% of the customized industrial training choices.

The set of coefficients in the state issued industrial bond equation are significant at the .001 level. The estimated r-square is equal to .65, indicating a strong goodness of fit. The rank order correlation between predicted (or estimated) values and actual values of the state industrial bond policy choice is equal to .66, indicating a strong correlation between actual and predicted values. State industrial bonds are statistically associated with percentage black of a state's population, own and transfer income resources, labor union organization, and the average ADA policy rating for incumbent congressmen. State issued industrial bonds are a function of resources, need, organized group strength, and general ideological

-policy- differences; this statistical relationship accurately predicts 83% of the state industrial bond decisions.

The set of coefficients in the property tax abatement equation are significant at the .01 level. The estimated r-square is equal to .55, indicating a moderate goodness of fit. The rank order correlation between predicted (or estimated) values and actual values of the property tax abatement policy choice is equal to .58, indicating a strong correlation between actual and predicted values.

State property tax abatement policies are statistically associated with own and transfer income resources, the median tax bill, the Democratic party percentage in the state legislature, and the average ADA policy rating for the state's Congressmen. Property tax abatements are a function of resources, the median voter's preferences, dominant party strength, and general ideological -policy- differences; this statistical relationship accurately predicts 83% of the state property tax abatement policy choices.

The set of coefficients in the investment tax credit equation are significant at the .01 level. The estimated r-square is equal to .39. The rank order correlation between predicted (or estimated) values and actual values of the investment tax credit policy choices is equal to .49, indicating a moderate correlation between actual and predicted values.

State investment tax credit decisions are statistically associated with own and transfer income resources, partisan competition, and labor union membership. Investment tax credits are a function of resources, and party and group strength. Increasing party competition is negatively related to investment tax credits, whereas increasing group strength is positively related to investment tax choices; this statistical relationship accurately predicts 77% of the investment tax credit decisions.

The set of coefficients in the job creation tax credit equation are significant at the .05 level. The estimated r-square is equal to .41. The rank order correlation between predicted (or estimated) values and actual values of the job creation tax credit policy choices is equal to .25. State job creation tax credit policies are statistically associated with own and transfer income resources, partisan competition, percentage of state residents below poverty, median tax bill, and the average ADA policy rating for a state's Congressional representatives.

Job creation tax credits are a function of resources, and party strength, need, median voter's revealed preferences, and general policy orientations. Increasing party competition is negatively related to job creation tax credits, whereas increasing median tax bills are positively related to investment tax choices; this statistical relationship accurately predicts 67% of the job creation tax credit decisions.

Residual Analysis

Residual analysis is an examination of predictions to find systematic error patterns. Correct predictions can also reveal systematic patterns, excluded from the model. Residual analysis of correct and incorrect predictions is a technique for analyzing a model's explanatory power while diagnosing systematic errors.

Errors are divided into two categories. The first category is an error occurring from predicting a one, when the actual value is a zero. The second error occurs when the model predicts a community to not adopt a policy (a zero) when the actual value is a one. I will only discuss errors greater than 75%.

In the free enterprise zone equation, we predict New York (78%) and Wisconsin (77%) to adopt free enterprise legislation. In New York's case, other state development policies cover New York City proper. Wisconsin is incorrectly predicted in four of the six equations.

On the flip side, Kentucky (81%), Mississippi (79%), and Oregon (71%) are all states predicted to not adopt free enterprise zones; each state has enacted free enterprise zone legislation. Two correct predictions are above 95%: Washington and Wyoming are states correctly predicted to not adopt free enterprise zone legislation.

In the customized industrial training model, Nevada (81%) and Wisconsin (76%) are incorrectly predicted to have adopted customized industrial policies. Eighteen correct state predictions are above 95%: Arkansas, Delaware, Florida, Georgia, Illinois, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. These eighteen southern, border, and industrialized midwestern states are all correctly predicted to adopt customized industrial training policies with a 95% probability.

The state issued industrial bond model incorrectly predicts adoption values for Pennsylvania (90%), Washington (84%), and Wisconsin (79%). These states do not issue industrial bonds at the state level. Nevada (82%) is incorrectly predicted as a zero, when in fact it does issue state industrial bonds.

Northeastern and midwestern states which issue industrial bonds are consistently correctly predicted: Connecticut, Massachusetts, Michigan, New

York, and Rhode Island are all states issuing bonds, predicted correctly above 95%. Southern and western states are correctly predicted to not issue state industrial bonds: Alabama, Georgia, Idaho, Louisiana, Mississippi, New Mexico, South Carolina, Utah, and Wyoming are all correct 95% zero predictions.

The investment tax credit model incorrectly predicts non-adoption values for Florida (93%), and Oklahoma (87%). These states have investment tax policies. New York is correctly predicted to have adopted investment tax credits. Only two of the eleven incorrect investment tax credit predictions are over 75%.

The job creation tax credit model incorrectly predicts an adoption value for Florida (83%); Florida is incorrectly predicted in both the investment and job creation tax credit equations. Alabama, Arkansas, Minnesota, and Mississippi are correct non-adoption predictions above 95%.

The property tax abatement model incorrectly predicts non-adoption values for Delaware (82%), Washington (90%), and West Virginia (86%). These states have property tax policies described in Table 5.1. Five northeastern states are 95% correct predictions to adopt property tax abatement policies: Connecticut, Massachusetts, New Jersey, Rhode Island, and Vermont are 95% correct adoption predictions. Two western states, Idaho and Utah, are 95% correct non-adoption predictions.

The residual analysis reveals two important pieces of information. First, the errors across these six equations are not generally systematic. Certain states, like Kentucky and Wisconsin, are consistently missed. But there are no consistent regional errors. Second, the correct predictions reveal a high degree of accuracy. Regional patterns emerge in the correct predictions. Since states compete for resources and share some preference and resource characteristics, this result is not surprising.

To summarize, most development policy choices are recent decisions. Many programs have not been in existence long enough to publish expenditure decisions. Expenditure decisions represent more elaborate measures of a state's commitment to pro-business policies. But the discrete policy choice model exhibits high statistical explanatory power for job creation tax credits, investment tax credits, state industrial revenue bonds, free enterprise, customized industrial training, and property tax abatement decisions. While evidence is never complete, or conclusive, I can offer two insights about community development policy choices.

VI. Policy Implications

Wealthier States Adopt Development Policies

The personal income per capita probit coefficient sign is positive for five of the six equations reported in Table 5.2 above; the federal aid or transfer income coefficient is positive in all six equations. Positive signs for the probit coefficient confirm the following substantive resource or fiscal capacity hypotheses:

H7: Increases in transfer (federal aid) income decrease the likelihood of adopting development policy choices.

H8: Increases in own (personal) income increase the likelihood of adopting development policies.

Hypotheses one and two, postulating a negative relationship between resources and development policy choices, are rejected.

Further evidence was obtained by estimating fourteen development policy choice equations. The development policy choices are customized industrial training, right to work laws, private development corporation act, human rights commission act, investment tax credits, job creation tax credits, property tax abatement acts, state issued industrial bonds, free enterprise zone legislation, industrial park development, industrial site location services, state land use planning commissions, and state zoning ordinance assistance for business. The coefficient patterns are consistent across development policies and across models.

The least squares coefficient for personal income per capita is positive in thirty five of forty two development policy choice equations. Personal income is positively related to development choices: a) in 13 of 14 of the unitary model equations, b) in 10 of 14 regulatory model equations, and c) in 12 of 14 dominant party equations.

The least squares coefficient for federal aid per capita is positive in thirty six of forty two development policy choice equations. Transfer income is positively related to development choices: a) in 13 of 14 of the unitary model equations, b) in 12 of 14 regulatory model equations, and c) in 11 of 14 dominant party equations.

The results consistently support a positive relationship between promoting development and community resources. The greater the community's (resources) budget, the more it can afford to adopt on wealth increasing economic growth policies. Higher own and transfer income states are more likely to adopt development programs; federal aid or transfer income exhibits the same coefficient sign patterns.

Thus, increases in the average voter's wealth, or increases in the state's average wealth, increase the chances of community development policy adoption. Community development policy choices are determined by resources. The evidence consistently supports a positive relationship between fiscal capacity and development policy choices.

Political Variables Determine Community Choices

Political variables are statistically associated with community development choices. In the six probit equations, party competition, labor union membership, democratic state legislative seat percent, average state Congressional ADA rating, and median tax bill are all statistically related to development policy choices. Community policy decisions are significantly related to political variables.

Interestingly enough, the average ADA rating is positively related to development policy choices in 35 of 42 equations estimated by the method of least squares. The ADA results confirm the importance of policy variations among state political parties. "Liberalness" is positively related to development policy adoption.

The Ranney partisan competition index, the democratic seat share percentage, and the average Congressional democratic vote percentage measures are evenly divided between positive and negative coefficient signs. The coefficient signs tend to vary according to the development policy typology, with democrats tending to favor direct intervention policies (positive signs) and republican tending to favor market incentives. The importance of direct partisan influence is diminished when the ADA policy rating is included.

In the median voter model, the median tax bill is negatively related to development policies in 10 of 14 least squares equations; population is positively related to 10 of the 14 development decisions. Development policies are positively related to population size; population size measures crowding effects. Public goods, including development policy, exhibit positive population size effects. The results replicate directional findings from other median voter model findings.[21]

A final test of political and fiscal development policy models is provided in Table 5.3 below. Table 5.3 lists the r-square goodness of fit statistical results for development policy choices involving customized industrial training, right to work laws, private development corporations, human rights commissions, investment tax credit, jobs creation tax credit, property tax abatement, state issued industrial bonds, industrial revenue grant, free enterprise zone, industrial park planning, industrial park development, state land use services for local communities, and state zoning services for local communities decisions. The three political models statistically explain development policy choices as well, if not fit the data better than, the unitary fiscal federal model.

TABLE 5.3

MODEL COMPARISON WITH GOODNESS OF FIT RESULTS

Policy Choice	Unitary Fiscal	Regulatory	Dominant Party	Median Voter
CIT	.25	.08	.21	.18
RWL	.35	.50	.43	.18
PDC	.05	.03	.06	.02
HRC	.17	.11	.15	.10
ITC	.22	.19	.15	.02
JTC	.17	.14	.13	.06
PTA	.09	.06	.13	.13
SIB	.30	.41	.43	.17
IRG	.04	.06	.21	.00
FEZ	.34	.27	.25	.16
IPP	.11	.22	.19	.06
IPD	.12	.21	.25	.03
SLU	.18	.07	.13	.06
SZS	.15	.09	.10	.14

Political federalism, and not fiscal federalism, explains community development policy choices. The unitary model consists of need and fiscal capacity resource variables. Fiscal capacity (resource) variables exhibit consistent patterns across equations, and own and transfer income measures influence specific development policy choices. On the other hand, development policy choices are not generally related to need variables. Need variable influence is neither systematic across equations or significant within individual equations. Both the coefficient patterns, and the significance of individual coefficients, support the claim that community policy choices are determined by political federalism.

Political and fiscal federalism are two competing explanations of community decision making. The evidence supporting political federalism consists of 1) significant individual coefficients, 2) coefficient patterns across a variety of development policies, 3) probit and least squares estimates measuring the influence of political variables on individual development policies (ie; Customized Industrial Training, State Issued Industrial Bonds, Free Enterprise Zones, and Tax Incentive Choices), and 4) the goodness of statistical explanatory power. Each test provides statistical evidence that political models explain community policy decisions. The evidence confirms that politics influences policy decisions.

VII. Conclusion

The purpose of this paper is twofold. First, community development policy is not usually studied from a state perspective. Yet states are taking on a greater role in community development policies. Future research on state, as well as city, government limitations and their effect on economic development policies is called for.

Second, the development policy typology and discrete choice methodology represent an alternative to studying aggregate expenditures. This paper adopts a community decision making perspective in order to understand comparative state policy issues. While this approach contrasts with past research, I believe that it will lead to a greater understanding of state policy decisions, by synthesizing the comparative state policy approaches with urban research traditions.

Future research efforts should concentrate on the linkages between state political organizations a development policy outcomes. Policy outcomes include growth rates in addition to the discrete choices studied here.

Development policy outcomes have a distributional impact upon states. If greater resources place wealthier states at a competitive advantage over other states, the national policies will involve an even more complex set of intergovernmental transfers, taxes, and subsidies. Development policies also influence intra-state resource distributions. We expect that various political leaders and groups organize to influence development policy formation and implementation. Further research upon both inter-state and intra-state redistribution of resources promoted by state development policy competition will be at the center of future comparative state and local research.

CHAPTER FIVE ENDNOTES

1. Peterson, P. City Limits. (Chicago: The University of Chicago Press, 1981), p. 41.

2. Ibid., p. 42.

3. Musgrave, R. and P. Musgrave. Public Finance in Theory and Practice. (3rd. ed. New York: McGraw-Hill Company, 1980), see chapter 1, subsection on "Fiscal Functions: An Overview."

4. The Directory of Incentives for Business Investment and Development in the United States: A State by State Guide. [DIR] The National Association of State Development Agencies, The National Council for Urban Development, and the Urban Institute. (Washington, D.C.: The Urban Institute Press, 1983).

5. Ibid., p. 33.

6. Surrey, S. and P. McDaniel, "The Tax Expenditure Concept in the Legislative Process," in The Economics of Taxation, ed. by H. Aaron and M. Boskin. (Washington, D.C.: Brookings Institute, 1979).

7. DIR., p. 53.

8. DIR., p. 57.

9. DIR., p. 328.

10. DIR., p. 484.

11. Dye, T. Policy Outcomes in the Fifty States. (Chicago: Rand McNally, 1966), see chapter 11, pp. 282-301 for an interpretation of results and conclusions about state development policy expenditures.

12. Peterson, P. "A Unitary Model of Local Taxation and Expenditure Policies in the United States," British Journal of Political Science, 1979, 9, pp. 281-314.

13. "1985 Optional State Sales Tax Tables," Instructions for Preparing Form 1040. (Washington, D.C.: Internal Revenue Service, Department of the Treasury, 1985), pp. 44-45.

14. Bergstrom, T. and R. Goodman. "Private Demands for Public Goods," American Economic Review, June 1973, 63, pp. 280-296.

15. Peltzman, S. "Toward a More General Theory of Regulation," Journal of Law and Economics, 1976, 19, pp. 211-240.

16. Morehouse, S. McCally. State Politics, Parties, and Policy. (New York: Holt, Rinehart and Winstron, 1981), pp. 95-126.

Cotter, C. et. al., Party Organizations in American Politics. (New York: Praeger, 1984).

Cotter, C. et. al., "Whither the Local Parties: A Cross Sectional and Longitudinal Analysis of the Strength of Party Organizations," (Paper Presented at the annual meeting of the Western Political Science Association, San Diego, CA, 25-27 March, 1982).

Barone, M. and G. Ujisfusa. The Almanac of American Politics. (Washington, D.C.: The National Journal, Inc., 1984).

17. Judge, G. et. al. The Theory and Practice of Econometrics. (New York: John Wiley and Sons, 1980), chapter 14, sections 5 and 6.

18. McFadden, D. "Conditional Logit Analysis of Qualitative Choice Behavior," ed. P. Zarembka, Frontiers of Econometrics. (New York: Academic Press, 1973).

19. Aldrich, J. and F. Nelson. Linear Probability, Logit, and Probit Models. (Beverly Hills, CA.: Sage Publications, 1985), Sage University Paper #45.

20. McKelvey, R. and W. Zavoina. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables," Journal of Mathmatical Sociology, 1976, 4, pp. 103-120.

21. Inman, R. "The Fiscal Performance of Local Governments: An Interpretive Review," eds. P. Mieszkowski and M. Straszheim, Issues in Urban Economics. (Baltimore: Johns Hopkins Press, 1978).

CHAPTER SIX:

COMMON INTEREST ACCUMULATION AND SUBSYSTEM POLITICS

I. Economic Performance in a Federal System

The causal relationship between political system variables and economic policy outcomes has been the subject of considerable attention over the last two decades.[1] There has been a resurgence of interest in the connection between political system variations and the rate of economic system growth.[2] Much of this renewed interest in the political economy of growth stems from the recent observation that the degree of technological innovation and productive activity in several Western European nations and the United States is stagnant relative to the performance of West Germany, Japan, and other countries.[3] The growth rates of economic systems with Western style democratic political systems are increasing at decreasing rates and they are at times actually decreasing.

In this paper we will specify and test two models for explaining slow economic growth rates.

The evidence supports the conclusion that a complex dynamic functional relationship between federal political system characteristics and economic system growth exists.

II. Theoretical Framework

Collective Action and Long Term Growth

In the Logic of Collective Action (1965), Mancur Olson provides a static public goods model of political organization.[4] Unlike individual entrepreneurs, rational groups seek to attain common interests which take the form of public goods to group members. Voluntary individual action results in socially inefficient amounts of the public good being supplied.[5] As the group size increases the tendency to underprovide increases. [6] Collective action is required for rational groups to achieve the common interests of constituent members. Small groups with heterogeneous interests and large groups attempting to supply public goods will generally fail to organize. In this way political organization is itself a public good because coalition formation requires costly individual provision of jointly consumable benefits.

In The Rise and Decline of Nations (1982), Olson extends his previous model of collective action in order to explain the factual existence and consequences of political organizations. Rational individuals may form coalitions over time because they find cooperative organization to provide public goods rational in a repeated (prisoner's dilemma game) situation or because common interests and political organizations are not pure public goods.[7] Political organizations are not generally pure public goods because many common interests exist where some rationing of benefits and costs is both feasible and desirable. That is, political organizations form with the intent to supply impure, not pure, public goods. If the common interest involves an impure public good, of if rationing devices are readily available, then the public goods dilemma for coalition formation is greatly limited.

The degree of "impurity" is related to the internal and external distribution of benefits and costs to individuals. Rationing devices, such as selective incentives, limit the degree of publicness associated with political organization by distributing benefits and costs to coalition members. The impurity of the common interests is related to the external or social distribution of benefits and costs associated with providing collective goods. Efforts to form coalitions to pursue impure public goods where costs are diffuse and benefits are narrow are more likely to form than coalitions attempting to supply diffuse or narrow cost and diffuse benefit coalitions.

Furthermore, once the coalition forms, the narrowness of benefits and diffuseness of costs decrease the problems associated with maintaining a political organization. The existence of impure public goods and rationing devices enhances the likelyhood of coalitions forming and political organizations succeeding in their quest to attain the common interests of group members. The existence and effectiveness of organized coalitions is naturally intertwined with the nature of the common interest being pursued.

Coalition formation occurs when rationing of the impure good(s) is both feasible and desirable such that some (individualized) division of benefits is possible and that some (privitized) exclusion of benefits to group members is possible. Effective political organization is most likely to occur when the common interest benefits are narrow and costs are diffuse so that a natural benefit rationing device exists prior to formal organization. Coalitions will form to supply impure public goods where the impurity results from narrow benefits, diffuse costs, and feasible rationing or where the situation encompasses diffuse benefits, narrow costs, and rationing is desirable.

The number of coalitions formed to provide impure public goods will increase over time provided that some rationing device exists to distribute benefits and costs to group members. Coalitions distributing "privitizing" benefits to group members and "socializing" costs to non-group members will form at a higher rate over time relative to other interests. Other coalitions trying to provide impure public goods with diffuse benefits and costs to large numbers of individuals or to small heterogeneous groups will organize at very slow rates (if at all) over time depending upon the existence (and effectiveness) of selective incentive rationing devices.

The effectiveness of political organizations over time depends upon their ability achieve common interests which increases with the impurity of the good and the existence of rationing devices. In addition, successfull coalition formation to achieve common interests increases the effectiveness and likelyhood of future coalition formation. Thus, coalition formation to attain common interests increases slowly in the beginning time periods and then more rapidly over time.

While in principle all groups in a society have a stake in economic system growth, only some coalitions form to pursue benefits derivable from growth. These organized common interests can achieve gains from politically distributive policies which may reduce overall economic performance because benefits are received principally by a narrow group while costs are diffusely distributed.[8] Olson further suggests that high levels of organized common interest group activity result in an overproduction of distributive political goods such as tarrifs, tax loopholes and subsidies that reward well defined special interests at the expense of the rest of the society. Organized common interest groups provide selective incentives and impure public goods to coalition members. Rational group pursuit of these common interests is, however, socially inefficient.

Olson goes beyond most social science models by hypothesizing a negative long term relationship between collective action within a political system and economic system growth. Olson hypothesizes that the rate of common interest organization to provide impure rationable public goods increases at an increasing rate over time.[9] The speed of coalition formation might presume either swiftly increasing monotonic or slowly increasing oscillating rates of common interest group accumulation. Olson implicitely assumes a slowly increasing at an increasing (oscillating) rate of accumulation in order to predict sluggish growth rates. The explanation is simply that stagant growth rates are caused by collective action over time, where economic growth rates are increasing at a decreasing functional relationship with the increasing (at a slowly increasing) rate common interest---coalition--formation and organization.

Two long run macro-economic system phenomena are predicted. First, the economy is expected to perform in a stagnant manner as coalitions form in increasingly large numbers. Second, the economic growth is expected to sluggishly increase if not absolutely decrease as political organizations achieve their common interests. In the long run, economic growth rates go to zero (and perhaps become negative). The Olson model is thus both an organizational capture and a life cycle explanation of how dynamic coalition formation affects long term economic performance.

One reason this portion of Olson's model is intuitively appealing is that the description of organizational inefficiencies that results in special interests being pursued to the neglect of social efficiency is not inconsistent with political science descriptions of interest group liberalism or subsystem politics.[10] In particular subsystem politics explains the over-production of distributive political goods as a function of internal political system characteristics.

A Production Function Approach

Equation one formalizes a simple macroeconomic production possibilities curve which we will use to compare a subsystem political model of growth with Olson's static and dynamic collective action models of growth. In equation one, we posit a tradeoff between a pure private good (aggregate real income) and an impure publicly provided good (from government purchases of goods and services) [11] The possible combinations of outputs of the private and impure public goods are a function of

EQ1: $Y/G = A*F[K,L]$

a constant state of technology, and capital and labor resource inputs.

The slope of the production possibilities curve defines the "amount of private goods we have to give up to obtain one more unit of public goods (which) is called the marginal economic rate of transformation...that takes into account the costs associated" providing impure public goods, as well as the conventional rate of technical transformation required to produce combinations of outputs. [12] Equation two defines the level of public good output

EQ2: $G = f[O(t)]$

(from governmental expenditures) equal to a composite function of common interest organization over time. We can use these two equations to derive a simple model of growth.

The Olson Model

Olson argues that as we increase levels of G, such that we are moving outward along the horizontal axis, that organizational activity begins increasing at some rate. Increasing resource inputs and technological innovations increase political organizational activity by expanding the production frontier outwards, which increases the output level of G. At each successive private sector induced expansion, political organizational activity increases at an increasing rate. Indeed, common interests will begin to attempt to capture the processes increasing output levels of (G) public goods.

Private economic success thus breeds increased organizational capture of resource inputs and technology. The interaction of outward input and technological expansion, increasing public and private good output levels, and increasing common interest organizational activity feedback on each other at increasing rates.

Clearly, growth rates are decreasing in each successive time period, such that the line segments connecting each output combination covers a shorter distance. As we reach some level of G (and Y), resulting in some high level of organizational capture, the production frontier either 1) becomes stagnant with very low growth rates so that it is virtually "stuck" at some point along the path or 2) it begins to very slowly contract. Contraction would occur slowly at the initial contractions and it would presumably continue until all the inputs are wasted or organizational capture is complete. Negative growth might or might not retrace--contract--along the (E) path.

Olson clearly intends to provide a model generating stagnant growth rates which are typically increasing at sluggish positive rates. Yet time presumably continues to increase with corollary increases in common interest organizational accumulation. The limiting case of high common interest group organization produces a counterintuitive outcome. We might wonder about the existence of a "sticky" E-point corresponding to a high level of impure public good outputs that corresponding to near perfect organizational capture. Furthermore, it is difficult to believe the implication that gradual contractions (or incremental expansions) along the E-path (or any stable path) would be stable with respect to existing common interest organizations in the long run.

A Political Subsystem Model of Economic Growth

Again the production frontiers represent combinations of resource inputs and provision costs producing public and private good output combinations. Finding an initial equilibrium is more problematic because presumably some common interest groups always exist, such that a zero organizational activity level has no substantive meaning. We presume outward expansion and similiar functional relationships expressed in equations one and two.

Given stable institutional structures, arrangements, and procedures, democratic polities accumulate interest groups which make demands upon government for distributive policy benefits. Allocative inefficiences will therefore accumulate as socities come to be plagued by organized groups providing public goods to their members, resulting in diminished economic growth and a further decline of a social efficiency.

Given a stable political system there is reason to believe that the distances will tend to be incremental and may very well decrease like those in the Olson model. But it is also likely that irregular oscillations will occur around equilibrium points, so that actual growth rates are somewhat capricious measures of true growth distances from one production curve to the next.

Nonetheless the rate of institutional change is incremental in stable political systems. The same political economy mixture delineating between public and private combinations and fostering economic growth may also be a victim as well as a beneficiary of long term institutional stability. Some institutional stability is clearly vital to guarantee politico-economic organization and competition, but too much stability reinforces socially inefficient patterns terns of allocation over time. Institutional drag is visable in stable parliamentory and presidential political systems but constitutional amendments and new constitutions are adopted which may produce significant institutional change across a whole political system-and among subsystem relationships.

Criticisms of Olson model

There are two important technical criticisms of the Olson model. These problems make empirical hypothesis testing more difficult. Sample information cannot be utilized to falsify various model assumptions because there are functional form and variable list problem with the Olson model.

Olson conceptualizes interest group organizational formation and activity as a long term or dynamic process. Whenever explaining long term phenomena, one needs to clearly state the directional, magnitudinal, and durational hypotheses governing the dynamic process. Precise functional relationships, such as those in equations one and two above, must be defined.

Given the production or organizational functions, conditional assumptions must be made about the relationships among variables. Assumptions regarding change, rates of change, and rates of rates of changes must all be specified. The Olson model is particularly imprecise when discussing the acceleration of interest group accumulation.

Without precise second order conditions, no solution to the Olson model is possible.

A second crucial functional form problem regards the (G) public good output function. In equation two, we posit the output combination to be a composite function: a function of organizational formation **over time.** Output is thus a function of a function. Again, all of the conditions need to be precisely hypothesized in order to conduct an adequate empirical test.

The Olson model is also incomplete with respect to specifying political system variables. Organizational activity affects capital markets and technological innovation in addition to labor markets. Common interest accumulation influences other aspects of the political system besides the pressure group or sub-system relationships among special interests and government.

Common interest organization happens within the party system and conversely some group competition occurs within the pressure system. The degree of political competition within a political system, the institutional characteristics of the political system, and the development of the political party system in organizational and competitive terms need also be modeled in order to explain the effect of interest group organization (of resource and technological inputs) on output combinations and growth rates over time.

In addition to other measures of political system influence, the question of how interest group activity gets translated into government inefficiencies is not adequately addressed. The subsystem politics literature points to a number of political system characteristics which encourage inefficient distributive policy. These include the activity and resources of interest groups; decentralization of legislative and executive branches of government levels of interaction and exchange among interest groups and government officials and the strength of party systems.[13]

The research findings reported here argue that Olson's model is not so much wrong as it is incomplete. In fact, the process focus of the subsystem politics provides usefull insights to the interest group processes which should permit a more adequate test of Olson's hypothesis that interest group politics leads to the economic decline of society. One way of conceptualizing federal system characteristics, such as political competition, organization, and institutional fragmentation, are as an intervening variable which may enhance or retard the process of organizational schlerosis.

To date Olson's model has not been sucessfully intergrated into subsystem theories to explain the economic consequences of subsystem politics within a federal structure. This analysis attempts to fill this research lacuna by first, replicating Olson's origional analysis to explain state growth rates and second, expanding this model to include a number of organizational process variables relating to subsystem politics. Before describing the methodology, the rationale for examining economic growth at the subnational level is discussed.

III. Research Design

The Dependent Variables

The analysis examines three indicators of absolute changes in state economies and two measures of changes in growth relative to other states. Employment is measured by the percentage increase in the number of persons employed in non-agricultural positions from 1973 to 1983. Employment is measured as an absolute change (ABS. EMPLOYMENT) and change in levels divided by national averages (REL. EMPLOYMENT) for the same years.

Earnings are measured by changes in indicators measuring earnings from both capital and labor. Absolute change in income from wages and proprietserships was calculated from 1973 to 1983 (ABS. EARNINGS*) and from 1981 to 1985 (ABS. EARNINGS-). In addition, a relative measure was constructed for the 1973 to 1983 period based upon the state percent increase divided by the national average (REL. EARNINGS). The source for the measures for the 1973 to 1983 period was the Commerce Department, published in The Survey of Current Business. The 1981 through 1985 growth measures were obtained from the Joint Economic Committee of the United States Congress (1986).[14]

The Organizational Schlerosis Index

Despite the complimentary descriptions of interest group distributive politics provided by the Olson model and subsystem theory, many political scientests have been reluctant to embrace the Olson growth theory. One reason is the neglect political institutions and process in Olson's formulation. Olson simply argues that organizational sclerosis is a function of time. The greater the duration of stable democracy, the greater the accumulation of specialized interests, which results in more inefficiency and ultimately economic decline.

While this formulation is parsimonious, parsimony is achieved by ignoring the intervening role that political institutions and processes play in the production of distributive policy. Using the amount of time which has elapsed since the most recent constitution was adopted as a measure of interest accumulation has been critisized by a number of scholars:

> "Linking relative growth patterns to between 1965 and 1974 to events occuring more than a century before, when industrialization was not far advanced in any of the states is a dangerous procedure unless one can gain some evidence that intervening events did not greatly influence current growth patterns." [15]

The time periods within which we choose to measure growth rates and organization formation rates and activity levels are somewhat arbitrary formally. Empirical growth and organization rates deviate from analytically pristine model solutions, in the same way that observable unemployment and inflation rates deviate from "true" rates. The actual solutions and paths deviate from individual points and a trace of points (or growth path) in certain idiocyncratically systematic ways (ie. an unemployment rate at "full employment" deviates from calculated unemployment rates). The deviation of actual observations from derived solutions is not troubling so long as the connection is maintained in a generalizable way.

Short term perturbations alter long run time paths. The truism that "nothing is constant except change" is particularly germane to the problem of measuring long term organization accumulation influences on long run economic growth rates. But the constancy of change enables us to use formal models to predict actual outcomes.

The organizational schlerosis index measures long run common interest accumulation as a function of time. The construct is based upon equation two presented above, where the form of f is presumed to be logistic.[16] A logistic functional form is a conventional specification for analysis of dynamic growth models. Of course, the index is time dependent. The selection of time is arbitrary. We use the time from a state's adoption of their first constitution as the measurement of time. It is worthwhile to compare this index with a schlerosis index constructed for time from present or latest state constitution adopted. No statistical relationship was found between the latter index and economic growth rates.

The schlerosis indicator increases in

percentage units. When the index reaches one hundred, interest group capture is presumably "perfect". The percentage of schlerosis increases at increasingly slower rates with time because of the specification of a logistic functional form.

The Unit of Analysis: State Economies

The choice of states as the units of analysis is based upon a number of substantive and methodological considerations. Increasing recognition is being given to the role the states play in shaping the economy.[17] Because states have traditionally been reponsible for economic development and regulatory functions, state policies can be directed to the enhancement collective growth as well as the provision of economic benefits to more narrow constituencies. Most recently states have experienced a revitialization in their responsibilities for service provision and policy development.[18] Since the United States is a large federation composed of seperate states, often with very different histories and policies, a disaggregated test of

Olson's model is possible.[19]

Theoretical understanding of the political economy of economic growth is enhanced when extant propositions are applied to the states. For many theories state units are superior for hypothesis testing because of their inherent variability across a number of salient dimensions. Moreover, comparative analysis necessitates standardized data and large samples to make statistical inferences. Cross-national studies have produced nonsignificant results at least in part because non-equivalent data gleaned from nations that have fundamentally different ways of measuring their economies and governments.

In addition, the difficulty in obtaining various types of data from diverse nations has promoted the use of small, non-representative samples. In comparison, standardized data from the fifty American states provides generalizable data for testing hypotheses about economic growth.

IV. The Results

The analysis of growth rates will be presented in two stages. The first stage will report a relplication of Olson's earlier analysis. The second stage will present a model which includes political system factors associated with subsystem politics in addition to a measure of organizational schlerosis.

Stage One: The Olson Model
Organizational Schlerosis and Growth

As reported in Table 6.1 below, we find that a statistically significant relationship exists between the organizational schlerosis index and the growth rate measurements in all five estimated equations. Notice that the degree of association is fairly low in all five cases. When we utilized the index constructed for the duration of present state constitution, we found no statistical relationships, suggesting that different schlerosis indeces produce different results.

The substantive directional hypothesis that organizational schlerosis is negatively related to the rate of growth is satisfied in four of the five equations. In equations one and two, a one (percent) unit increase in organizational schlerosis decreases the absolute economic growth rate by about 5\1000's. Recalling that the schlerosis index is measured in percent units, and noticing that the constant term is roughly equal to 44, whenever organizational schlerosis equals 100 (or there is 100% schlerosis) the model predicts zero growth. The coefficient for employment is slightly larger than the coefficient for earnings suggesting a faster convergence for employment to the zero growth outcome.

The Additional Impact of Labor Organization

The pervasiveness of interest group membership within a state should indicate the level of demands placed upon the political system. Unfortunately, the only special-interest organizations for which reliable state by state membership statistics are

TABLE 6.1

THE EFFECT OF ORGANIZATIONAL SCHLEROSIS ON ECONOMIC GROWTH

Independent Variable	constant	b	F
Abs. Employment	43.05	-.44	14.79
.000 .24			
Abs. Wages and Profits*	36.92	-.34	3.92
.078 .08			
Abs. Wages and Profits-	-25.37	2.21	4.92
.030 .09			
Rel. Employment	307.27	-3.14	16.02
.000 .26			
Rel. Wages and Profits*	296.47	-2.80	7.01
.011 .13			

NOTE: *1973-1983 -1981-1985
NOTE: sig. of F and r-squared listed below independent variable

readily available are labor unions. "In view of the widespread neglect of the parallels between labor unions and other special interest groups it is important not to attribute all the distributive effects of special interest organizations to labor unions. It is probably appropriate, however, to treat labor union membership as a proxy measure for membership and strength of of all common interest groups".[20] The proportion of the non-agricultural workforce in each state which is unionized (UNION) will be the indicator of special interest membership and strength in the Olson model.

A statistically significant relationship exists in each equation. The directional hypotheses are satisfied in four of the five equations: labor organization, and organizational schlerosis are negatively related to growth rates. Interestingly enough, the directional hypothesis concerning organizational schlerosis is not satisfied during the Reagan Presidency--increasing organizational schlerosis is positively related to growth.

There exists a high goodness of fit between the organizational information and growth rates. These trivariate results are consistent with other reported results one half of the absolute and relative state economic growth rates variation correlates with organizational activity. The results replicate Olson's conjecture that organizational activity correlates with growth rates; the statistical relationships are remarkably strong given the

TABLE 6.2

THE EFFECT OF ORGANIZATIONAL SCHLEROSIS AND UNIONIZATION ON ECONOMIC GROWTH RATES

Dependent Variable	Independent Variable	b	t	sig. of t
ABS. EMPLOYMENT .51				
Unionization		-7.14	-5.27	.000
Schlerosis Index		-.38	-4.14	.000
constant= 54.77				
F= 25.55 sig. of F= .000				
ABS. WAGES AND PROFITS: 1973-83 .38				
Unionization		-.11	-4.67	.000
Schlerosis Index		-.26	-1.78	.081
constant= 53.50				
F= 13.77 sig. of F= .000				
ABS. WAGES AND PROFITS:1981-85 .23				
Unionization		-.38	-2.75	.009
Schlerosis Index		2.53	2.69	.011
constant= 37.59				
F= 6.58 sig. of F= .003				
REL. EMPLOYMENT .53				
Unionization		-.48	-5.18	.000
Schlerosis Index		-2.73	-4.32	.000
constant= 387.38				
F= 25.96 sig. of F= .000				
REL. WAGES AND PROFITS:1973-1983 .47				
Unionization		-.68	-5.44	.000
Schlerosis index		-2.23	-2.67	.011
constant= 407.59				
F= 20.45 sig. of F= .000				

simplicity of the information.

The results in equation 1981-85 growth rate of annual wages and profits are inconsistent with the Olson models predictions. There are three plausible explanations for this contradiction. First, the time period is shorter (five years) than the other wages and profits growth rate measure. As discussed earlier, the selection of individual time periods and the selection of a single time path is somewhat arbitrary and idiosyncratic. The connection between analytical and synthetic growth rates is imperfect. Second, the model specification for all the equations is imperfect, such that individual measures, the list of variables included (and excluded), and the functional form are suspect the original analysis and subsequent replications. Third, there has been a political and economic change during this period.

The change in sign from minus to plus associated with the influence of the organizational schlerosis index upon growth provides evidence that a substantive political and economic change has occured. The growth of annual wages and profits were negatively related to organizational activity in the earlier (and longer) 1973-83 period, and they are positively related to the same growth rate in the later and slightly overlapping 1981-85 period. In more recent period, organizational organizational organizational schlerosis is positively related to the rate of growth which appears to falsify the Olson hypothesis that the increasing accumulation of common interest groups over time is negatively related to growth.

Stage Two: The Subsystem Model

The Party System

As discussed above, a number of prerequisites for subsytem politics have been suggested. These include weak and or non-competitive political parties, penetration of bureacratic agencies by specialized interests, and the functional decentralization of legislatures. Each of these concepts and their operationalizations are discussed below.

The development of the modern party system has paralleled the predominance of subsystem politics. A structural model of the party system consists of three major variables: party competition, organization, and opportunity structure.[21] Party competition is a dynamic phenomena requiring measurement of turnover by office over time. Party competition varies by office, by time, by state, by electoral rules and representation systems, and by party. There exists an asymmetry between the majority (democratic) and minority (republican) parties in competitiveness for offices during various time periods.

These asymmetries affect competition at the individual seat level and competition at the legislative majority turn over level. Most situations are non-competitive at both levels of analysis. In addition duopoly party competition is imperfect; the effective monopolization of opposition and duopoly cartelization of government leadership and opposition produces indeterminate and sometimes collusive (rather than competitive) policy outcomes.

Organization of political parties within a presidential system differs from a parliamentory system. Party discipline is less prevalent. Fewer enforcement mechanisms are available to party leaders to mandate compliance of party officials with the pursuit of common party organizational interests.

Political parties are organized around the individual office and they are horizontally structured by the office seeking behavior of individual candidates. Party organizations are vertically structured by career opportunity patterns. The interaction of ambitious politicians seeking offices within institutionally fragmented and vertically arrayed offices produces a hierarchical pattern of political party organization. Institutional structures dividing and separating power among branches of government and levels of government shape party competition and organization. State electoral procedures also regulate the development and pattern of party competition and organization. Career opportunity structures are defined within instititional arrangements assigning value to offices.

The structural relationships within the party system provide an important framework for understanding the central place of political parties in the united states political system. Party competition measures political action between parties while party organization is concerned with political action within a party. Both purposive actions ultimately affect governmental activity through office holders operating within an institutional context.

The existence of traditional party machine organizations has been well documented.[22] We posit a strong negative relationship between traditional party organization and pressure group organization in states.[23] The evidence suggests that party competition may have an counterbalancing effect, while traditional party organizational strength increases the effect of subsystem pressure group influence on government policy making activity.

The social inefficiency stemming from long term pressure group influence will tend to be enhanced by party organizational development. The exigent concerns for party organizational development are not antithetical to the desires of pressure group organizations. Opposing common interests can be articulated by the through existence and activity of party and pressure group organizations. Organizational activity in either the pressure or party system can bias output combination levels and thus decrease economic growth. The degree of organizational development existing to articulate common interests within the pressure system will face countervailing organizational activities and competitive incentives within the party system.

The Penetration of Agencies

Bureaucratc agencies provide an important access point for interest groups. In states with a highly decentralized executive branch, agencies may form alliances with groups. State agencies frequently pursue an independent view of the public interest defined more by their own need than by directives of elected officials. Because interest groups tend to benefit from the services and regulatory practices of state agencies, they are often the allies of agencies in promoting agency goals and independence.[24]

These "cozy" alliances may encourage the production of distributive policies.[26] Interaction between interest groups and bureaucratic agencies is measured by an index of the level of interaction of state agencies with interest groups developed by Glenn Abney and Thomas Lauth (1986). This measure is dervived from a survey of 778 department heads in the 50 states.

Functional Decentralization of Legislatures

Decentralization and specialization among state legislatures may also provide institutionalized access for interest groups pursuing distributive policies. At the national level an extensive literature has developed which examines the impact of decentralization of the committee system. in Congress with the success of interest group demands.[26]

Recent evidence support similar relationships at the state level. Most depictions of subsystem politics suggests that triangular relationships develop between interest groups, bureaucratic agencies and specialized congressional committees. [27]

Legislative specialization is measured based upon a factor score developed by Ann Bowman and Richard Kearney in their effort to index state government capability (1986).[28] This score is derived form two measures: the number of committees in the state legislature and the number of committee assignments. This score which the authors call legislative specialization provides and excellent measure of decentralization and specialization of state legislatures.

Increasing levels of party competition is associated with increasing growth rates. The use of lagged party competition is justified because economic growth is occuring within the existing competitive structures. The degree of party and pressure system competition shapes economic system growth. Political system competition is one

TABLE 6.3a

THE EFFECTS OF SCHLEROSIS AND SUB-SYSTEM POLITICS ON STATE ECONOMIC GROWTH

Dependent Variable	Independent Variable	b	t	sig. of t
ABS. EMPLOYMENT				
party organization		-2.34	-2.33	.025
legislative specialization		1.60	1.21	.232
group/bureau interaction		-4.13	-0.76	.453
party competition		17.79	2.55	.015
schlerosis index		-.30	-2.54	.015

constant= 28.80 F= 8.07
sig. of F= .000 r2= .49

ABS. WAGES AND PROFITS: 1973-1983			
party organization	-1.50	-1.06	.294
legislative specialization	1.65	0.89	.380
group/bureau interaction	-9.30	-1.46	.125
party competition	46.02	4.69	.000
schlerosis index	-.29	-1.76	.085

constant= 8.50 F= 7.54
sig. of F= .000 r2= .47

ABS. WAGES AND PROFITS: 1981-1985			
party organization	-15.93	-1.63	.112
legislative specialization	9.81	.73	.470
group/bureau interaction	-8.93	-.17	.870
party competition	40.23	.44	.661
schlerosis index	3.19	2.62	.012

constant= -76.13 F= 1.79
sig. of F= .136 r2= .17

TABLE 6.3b

REL. EMPLOYMENT			
party organization	-16.14	-2.33	.025
legislative specialization	1.09	1.20	.238
group/bureau interaction	-0.32	-.84	.401
party competition	118.25	2.44	.019
schlerosis index	-2.17	-2.66	.011
constant= 210.69 F= 8.27			
sig. of F= .000 r2= .50			
REL. WAGES AND PROFITS: 1973-83			
party organization	-13.68	-1.57	.125
legislative specialization	1.28	1.11	.274
group/bureau interaction	-.48	-1.02	.315
party competition	251.98	4.14	.000
schlerosis index	-2.15	-2.09	.042
constant= 131.10 F= 7.95			
sig. of F= .000 r2= .49			

determinate shaping the environment for short run business activity and its resultant long run growth rates.

The evidence in Table 6.3 supports a hypothesized relationship between political system competition and economic system growth. The Ranney party competition index for 1956-70 is positively correlated to absolute and relative employment and earnings growth rates. A statistical relationship exists in the sample information, and we can infer a strong possitive association from the evidence estimated for all five growth rate equations.

The existence of traditional party (machine) organizations is negatively related to growth rates. The Mayhew index is positively and statistically related to the labor unionization measure. Traditional party organization exhibits a strong negative association with employment growth rates and a moderate negative relationship with wages and profits. Both party system competition and organization are significantly related to economic system growth.

V. Conclusion

Organizational activity in both the party and pressure system can have reinforcing negative effects on economic system growth. But these influences are not unbalanced. The degree of political system competition can mitigate and redirect the impact of common interest organizations, such as pressure groups and political parties, upon long term economic system performance.

As the model comparison reveals, the Olson models are incomplete in several respects. The Olson model only considers organizational activity within the pressure system. Clearly, organizational activity within the party system is also an important determinate of growth rates. Political party (and presumably pressure system) competition influences growth by shaping the development of organizations and their activities within both the pressure and party systems. Both the power of existing subgovernment relationships, and the development of future organizations, are influenced by political competition. The absence of political competition as a measure of political system influence on economic growth is a crucial omission and limitation of the Olson approach.

Furthermore, the party system can (imperfectly) balance the influence common interest organizations or pressure group. The statistical elaboration of political competition, and specifically party competition, enhances our understanding of economic system growth processes. In general, political parties have a central dynamic role in the development and maintainence of economic systems and subgovernment relationships between common interest organizations and government officials. The existence of a significant negative relationship between traditional party organizations suggests that party system activity can decrease as well as increase economic growth; in the same light, pressure group accumulation has a delereretious effect upon growth rates which can be partially checked by political (party and pressure) competition.

As Olson argues, pressure group competition is imperfect. Left alone the pressure group system will produce socially inefficient levels of public goods and impose costs on unorganized groups in the long run traditional party organizations can enhance the long run influence of pressure groups in situations where the party organizations are captured or aligned with common interest organizations. Thus, our formulation of an organizational capture hypothesis is more general than Olson's, yet it allows for more complex federal subsystem relationships. The model comparison results are remarkably similar. All of the sets of variables are statistically related to the growth rate measures for both models. Both the Olson and subsystem models exhibit a moderate to high degree of statistical explanatory power for cross sectional data. Political variables explain close to one half of the variation in state economic growth rates. This result is consistent for both absolute and relative economic growth rates.

TABLE 6.4

COMPARISON OF THE OLSON AND SUBSYSTEM MODELS

	Olson			Subsystem		
	r2	F	sig. of F	r2	F	sig. of F
Abs. Employment	.49	25.55	.000	.42	8.07	.000
Abs. Wages*	.35	13.77	.000	.41	7.54	.000
Abs. Wages-	.23	6.58	.003	.08	1.79	.136
Rel. Employment	.51	25.76	.000	.46	8.27	.000
Rel. Wages*	.44	20.45	.000	.43	7.95	.000

*1973-1983 -1981-1985

For model comparison purposes, the degree of association between party system characteristics and economic system growth are similar to the total effect of unionization on growth. Institutional fragmentation measures add little statistical explanatory power, yet they are neccessary for a more accurate political system model and precise test of the long run pressure system bias conjecture.[29] Institutional fragmentation measure the structure of opportunities and potential for access to policy decisions.

The most correct specification of a political subsystem model would require measures of political (party and pressure group) competition and organization. These dimensions would need to be augmented with measures of institutional fragmentation that define individual and coalitional opportunities and access to influence policy decisions. Simply asserting the existence of organizational capture without evidence of interest group interaction with government is an insufficient test (and measure) of common interest organizational activity. Clearly further measurement of common interest group activity, organization, and competition in states is called for.

CHAPTER SIX ENDNOTES

1. Hofferbert, R.I. "The Relation Between Public Policy and Some Structural and Environmental Variables in the American States," American Political Science Review, March 1976, pp. 72-82.

2. Maitland, I. "Interest Groups and Economic Growth Rates," Journal of Politics, 1985, 47, pp. 44-58.

   Mitchell, J. et. al. "A Comparative Analysis of Government Growth in the Fifty States: A Test of Five Explanations," Paper Presented at the Annual Meeting of the Midwest Political Science Association, Chicago 1985.

   Mueller, D.C. ed. The Political Economy of Growth. (New Haven: Yale University Press, 1983).

3. Olson, M. The Rise and Decline of Nations. (New Haven: Yale University Press, 1982).

4. Olson, M. The Logic of Collective Action. (Cambridge: Harvard University Press, 1965).

5. Samuelson, P. "The Pure Theory of Public Expenditure," Review of Economics and Statistics, 1954, 36, pp. 347-349.

6. Chamberlain, J. Provisions of Collective Goods as a Function of Group Size," American Political Science Review, 1974, 68, pp. 707-716.

7. Friedman, J.W. Game Theory with Applications to Economics. (New York: Oxford University Press, 1986).

8. Lowi, T.J. "American Business, Public Policy, Case Studies and Political Theory," World Politics, 1964, 16, pp. 677-715.

9. Choi, K. "A Statistical Test of Olson's Model," Mueller, D.C. ed., The Political Economy of Growth, (New Haven: Yale University Press, 1983), pp. 57-78.

10. Lowi, T.J. The End of Liberalism. (New York: Norton Press, 1969).

11. Dornbusch, R., and Fischer, S. Macroeconomics. (4th ed. New York: McGraw-Hill Company, 1987), chapter 19.

12. Stiglitz, J.E. Economics of the Public Sector. (New York: W.W. Norton & Company, 1986).

13. Gray, V. "Politics and Policy in the American States," in Politics in the American States. (Boston: Little, Brown and Company, 1983), pp. 3-25.

Fiorina, M.P. Congress: The Keystone of the Washington Establishment. (New Haven: Yale University Press, 1977).

Ripley, R.B., and Franklin, G.A. Congress, the Bureaucracy, and Public Policy. (3rd ed. Homewood: The Dorsey Press, 1984).

Abney, G., and Lauth, T.P. "Interest Group Influence in the States: A View of Subsystem Politics." Paper Presented at the Annual Meeting of the American Political Science Association, Washington D.C., 1986.

Dodd, L.C., and Shott, R.L. Congress and the Administrative State. (New York: John Wiley and Sons, 1979).

Crotty, W.J., and Jacobsen, G.C. American Parties in Decline. **(Boston: Little, Brown and Company, 1980)**

14. Johnson, K.P., and Friedenberg, H.L. "Regional and State Projections of Income, Employment, and Population to the Year 2000," Survey of Current Business, May 1985, pp. 39-64.

Democratic Staff of the Joint Economic Committee. "The Bi-Coastal Economy." A staff study for the Joint Economic Committee, Congress of the United States, July 9, 1986.

15. Pryor, F.L. "A Quasi-Test of Olson's Hypothesis," in Mueller, D.C. ed., The Political Economy of Growth. (New Haven: Yale University Press, 1983), pp. 90-108.

16. Choi, K. (1983: pp. 57-78)

17. Bahl, R. Financing State and Local Government in the 1980's. (New York: Oxford University Press, 1984).

Dubnick, M., and Holt, L.W. "Intergovernmental Strategies for Nationa Industrial Policy." Paper Presented at the Annual Meeting of the American Political Science Association, New Orleans, 1985.

18. Mitchell, J. et. al. (1985)

19. Brace, P. "Federal Expenditure and State Economic Growth." Paper Presented at the Annual Meeting of the American Political Science Association, Washington D.C., 1986.

20. Olson, M. "The Political Economy of Comparative Growth Rates," in Mueller, D.C. ed. The Political Economy of Growth. (New Haven: Yale University Press, 1983), pp. 7-52.

21. Schlesinger, J.A. Ambition and Politics: Political Careers in the United States. (Chicago: Rand McNally, 1966).

22. Mayhew, D.R. Placing Parties in American Politics. (Princeton: Princeton University Press, 1986).

23. Ibid., p. 239.

24. Abney, G., and Lauth, T.P. The Politics of State and City Administration. (Albany: State University of New York, 1986).

25. Lowi, T.J. (1969)

Rourke, F.E. Bureaucracy, Politics, and Public Policy. (Boston: Little, Brown and Company, 1976).

26. Dodd, L.C., and Oppenheimer, B.I. eds. Congress Reconsidered. (2nd ed. Washington: Congressional Quarterly Press, 1981), pp. 390-420.

27. Freeman, J.L. The Political Process: Executive Bureau-Legislative Committee Relations. (New York: Random House, 1965).

28. Bowman, A.M., and Kearny, R.C. "Indexing State Government Capability." Paper Presented at the Annual Meeting of the Southwestern Political Science Association, San Antonio Texas, 1986.

29. Schattschneider, E.E. The Semi-Sovereign People: A Realists View of Democracy in America. (Hinsdale, Illinois: The Dryden Press, 1960).

BIBLIOGRAPHY

BIBLIOGRAPHY

Abney, Glenn, and Lauth, Thomas P. "Interest Group Influence in the States: A View of Subsystem Politics." Paper Presented at the Annual Meeting of the American Political Science Association, Washington, D.C., 1986.

Abney, Glenn and Lauth, Thomas P. The Politics of State and City Administration. Albany: State University of New York Press, 1986.

Aldrich, John H., and Nelson, Forrest D. (1985) "Linear Probability, Logit, and Probit Models." Sage University Paper Series on Quantative Applications in the Social Sciences, 07-045. Beverly Hills and London, Sage Publications.

Anderson, James E. Public Policy Making. New York: Holt, Rhinehart, and Winston, 1984.

Arrow, Kenneth J. Social Choice and Individual Values. 2nd. ed. New York: Wiley Press, 1963.
Atkinson, Anthony B. and Stiglitz, Joseph E. Lectures on Public Economics. New York: McGraw-Hill, 1980.

Bahl, Roy. Financing State and Local Government in the 1980's. New York: Oxford University Press, 1984.

Barone, Michael, and Ujisfusa, Grant The Almanac of American Politics. Washington, D.C.: The National Journal, Inc., 1984.

Batra Raveendra N., and Pattanaik, Prasanta K. "On Some Suggestions for Having Non-binary Social Choice Functions," Theory and Decision, 1972, 3, pp. 1-11.

Bergstrom, Theodore, and Goodman, Robert. "Private Demands for Public Goods," American Economic Review, June 1973, 63, pp. 280-296.

Bewley, Truman. "A Critique of Tiebout's Theory of Local Public Expenditures," Econometrica., 1981, 49 pp. 713-739.

Bingham, Richard D. State and Local Government in an Urban Society. New York: Random House, 1986.

Bish, Robert, and Ostrom, Vincent. Understanding Urban Government: Metropolitan Reform Reconsidered. Washington D.C.: American Enterprise Institute for Policy Research, Domestic Affairs Study 20, 1973.

Boadway, Robin W., and Wildasin, David E. Public Sector Economics. 2nd. ed. Boston: Little, Brown and Company, 1984.

Bowman, Ann, and Kearny, Richard C. "Indexing State Government Capability." Paper Presented at the Annual Meeting of the Southwestern Political Science Association, San Antonio Texas, 1986.

Brace, Paul. "Federal Expenditure and State Economic Growth." Paper Presented at the Annual Meeting of the American Political Science Association, Washington D.C., 1986.

Browne, William P. "Variations in the Behavior and Style of State Lobbyists and Interest Groups," Journal of Politics, 47, pp. 450-468.

Buchanan, James M., and Goetz, Charles H. "Efficiency Limits of Fiscal Mobility: An Assessment of the Tiebout Model," Journal of Public Economics, April 1972, 1, pp. 25-43.

Citizens Research Council of Michigan. Municipal Government Economic Development Incentive Programs in Michigan. Lansing, Michigan: Citizens Research Council of Michigan, Report No. 280, February 1986.

Chamberlain, Edward. The Theory of Monopolistic Competition 8th. ed., Cambridge, Mass.: Harvard University Press, 1962.

Chamberlain, John. "Provision of Collective Goods as a Function of Group Size," American Political Science Review, 68, pp. 707-716.

Choi, Kwang. "A Statistical Test of Olson's Model," Mueller, Dennis.C. ed., The Political Economy of Growth, New Haven: Yale University Press, 1983.

Conover, W. J. Practical Nonparametric Statistics. 2nd. ed. New York: John Wiley & Sons, 1980.

Cotter, Cornelius P., Gibson, James L., Bibby, John F., and Huckshorn, Robert J., Party Organizations in American Politics. New York: Praeger, 1984.

Cotter, Cornelius P., Gibson, James L., Bibby, John F., and Huckshorn, Robert J., "Whither the Local Parties: A Cross Sectional and Longitudinal Analysis of the Strength of Party Organizations," Paper Presented at the annual meeting of the Western Political Science Association, San Diego, CA, 25-27 March, 1982.

Crotty, William J., and Jacobsen Gary C. American Parties in Decline. Boston: Little, Brown and Company, 1980.

Democratic Staff of the Joint Economic Committee. "The Bi-Coastal Economy." A staff study for the Joint Economic Committee, Congress of the United States, July 9, 1986.

"Townships Face Annexation Threat," The Detroit News. 11 May, 1986.

"Delray Failed Them," The Detroit Times, 8, June 20, 1905.

Diamond, Martin. "What the Framers Meant by Federalism," in Robert A. Goldwin (ed.). A Nation of States. Chicago: Rand McNally, 1974.

Dodd, Lawrence C., and Oppenheimer, Bruce I. eds. Congress Reconsidered, 2nd. ed. Washington D.C.: Congressional Quarterly Press, 1981.

Dodd, Lawrence C., and Shott, Richard L. Congress and the Administrative State. New York: John Wiley and Sons, 1979.

Dornbusch, Rudiger, and Fischer, Stanley. Macroeconomics. 4th ed. New York: McGraw-Hill Company, 1987.

Dubnick, Mel, and Holt, Lynne W. "Intergovernmental Strategies for National Industrial Policy." Paper Presented at the Annual Meeting of the American Political Science Association, New Orleans, 1985.

Dye, Thomas R. Policy Outcomes in the Fifty States. Chicago: Rand McNally, 1966.

Fisch, Otto. "Optimal City Size, The Economic Theory of Clubs, and Exclusionary Zoning," Public Choice, Winter 1975, **24**, pp. 59-70.

Friedman, James W. Game Theory with Applications to Economics. Oxford: Oxford University Press, 1986.

Frohlich, Norman, and Oppenheimer, Joseph A. Modern Political Economy. Englewood Cliffs, N.J.: Prentice-Hall Foundations of Modern Political Science Series, 1978.

Freeman, J. Leiper. The Political Process: Executive Bureau-Legislative Committee Relations. New York: Random House, 1965.

Fiorina, Morris P. Congress: Keystone to the Washington Establishment. New Haven: Yale University Press, 1977.

Gray, Virginia. "Politics and Policy in the American States," in Politics in the American States. Boston: Little, Brown and Company, 1983, pp. 3-25.

Grodzins, Morten. The American System, ed. by D. Elazar. Chicago: Rand McNally, 1966.

Hale, George E., and Palley, Marian Lief The Politics of Federal Grants. Washington D.C.: Congressional Quarterly Press, 1981.

Hamilton, Chris, and Wells, Donald. "Viewing Federalism as a Complex Political Economy: The Macro Social Functions of Federalism," Paper Presented at the Annual Meeting of the Sourthwestern Social Science Association Meeting at the Dallas Hilton, March 18-21, 1987.

Hamm, Keith E. "U.S. Legislative Committee Decisions: Similar Results in Different Settings," Legislative Studies Quarterly, 5, pp. 31-34.

Hanushek, Eric A., and Jackson, John E. Statistical Methods for Social Scientists. New York: Academic Press, 1977.

Hofferbert, Richard I. "The Relation Between Public Policy and Some Structural and Environmental Variables in the American States," American Political Science Review, March 1976, pp. 72-82.

Ingram, Helen. "Policy Implementation Through Bargaining: The Case of Federal Grants-in-Aid," Public Policy, Fall 1977, 25, pp. 501-526.

Inman, Robert P. "The Fiscal Performance of Local Governments: An Interpretive Review," eds. Peter Mieszkowski and Mahlon Straszheim, Issues in Urban Economics. Baltimore: Johns Hopkins Press, 1978.

Johnson, Kenneth P., and Friedenberg, Howard L. "Regional and State Projections of Income, Employment, and Population to the Year 2000," Survey of Current Business, May 1985, pp. 39-64.

Judge, George G., Griffiths, William E., Hill, R. Carter., and Lee, Tsoung-Chao. The Theory and Practice of Econometrics. New York: John Wiley and Sons, 1980.

Kramer, Gerald H. "On a Class of Equilibrium Conditions for Majority Rule," Econometrica, March 1973, **41**, pp. 285-297.

Layard, P.R.G. and A.A. Walters. Microeconomic Theory. New York: McGraw-Hill Company, 1978.

League of Women Voters. The State We're In. Lansing, Mich.: League of Women Voters of Michigan, August 1979.

Lowi, Theodore J. "American Business, Public Policy, Case Studies and Political Theory," World Politics, **16**, pp. 677-715.

Lowi, Theodore J. The End of Liberalism. New York: Norton Press, 1969.

Lowi, Theodore J. "Four Systems of Policy, Politcs, and Choice," Public Administration Review, **32**, pp. 298-310.

Maitland, Ian. "Interest Groups and Economic Growth Rates," Journal of Politics, 47, pp. 44-58.

Mayhew, David R. Placing Parties in American Politics. Princeton: Princeton University Press, 1986.

McCarthy, David J. Local Government Law. 2nd. ed. St. Paul, Minn.: Nutshell Series of West Publishing Company, 1983.

McGuire, Martin. "Group Segregation and Optimal Jurisdictions," Journal of Political Economy., Jan/Feb. 1974, 82, pp. 112-132.

McFadden, Donald. "Conditional Logit Analysis of Qualitative Choice Behavior," ed. P. Zarembka, Frontiers of Econometrics. (New York: Academic Press, 1973).

McKelvey, Richard D., and Zavoina, William. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables," Journal of Mathmatical Sociology, 1976, 4, pp. 103-120.

State of Michigan, Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Plant Rehabilitation and Industrial Development Districts Law of 1974. 1st. ed., Lansing, Mich.: State of Michigan Printing Office, 1984.

State of Michigan, Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Plant Rehabilitation and Industrial Development Districts Law of 1974. 2nd. ed., Lansing, Mich.: State of Michigan Printing Office, 1984.

State of Michigan, Office of Economic Expansion, the Michigan Department of Commerce, A Guide to Michigan's Commercial Development Districts Law of 1977. 1st. ed., Lansing, Mich.: State of Michigan Printing Office, 1984.

State of Michigan, "Charter Township List," Michigan Department of State, Richard A. Austin. Jan 1, 1985. Unpublished Documents.

State of Michigan, "Governmental Units Utilizing Act 198, P.A. 1974, As Amended As of 12/31/84," Michigan State Tax Commission, 1984. Unpublished Documents.

State of Michigan, "Governmental Units Utilizing Act 255, P.A. 1978, As Amended As of 12/31/84," Michigan State Tax Commission, 1984. Unpublished Documents.

Miller, Gary J. Cities by Contract: The Politics of Municipal Incorporation. Cambridge, Mass.: MIT Press, 1981.

Mitchell, Jerry., and Feiock, Richard. "A Comparative Analysis of Government Growth in the Fifty States: A Test of Five Explanations," Paper Presented at the Annual Meeting of the Midwest Political Science Association, Chicago 1985.

Morehouse, Sarah McCally. State Politics, Parties, and Policy. New York: Holt, Rinehart and Winstron, 1981.

Mueller, Dennis C. Public Choice. New York: Cambridge University Press, 1981.

Mueller, Dennis C. ed. The Political Economy of Growth. New Haven: Yale University Press, 1983.

Munro, William Bennett. Municipal Government and Administration. Vol.II., New York: The Macmillan Company, 1923.

Murin, William J. ed. Classics of Urban Politics and Public Administration. Oak Park, Illinois: Moore Publishing Company, 1982.

Musgrave, Richard A., and Musgrave, Peggy B. Public Finance in Theory and Practice. 3rd. ed. New York: McGraw-Hill Company, 1980.

The National Association of State Development Agencies, The National Councial for Urban Development, and the Urban Institute. The Directory of Incentives for Business Investment and Development in the United States: A State by State Guide. Washington, D.C.: The Urban Institute Press, 1983.

Oates, Wallace E. Fiscal Federalism. New York: Harcourt Brace Jovanovich, Inc., 1972.

Olson, Mancur. The Logic of Collective Action. Cambridge: Harvard University Press, 1965.

Olson, Mancur. The Rise and Decline of Nations. New Haven: Yale University Press, 1982.

Olson, Mancur. "The Political Economy of Comparative Growth Rates," in Mueller, Dennis.C. ed. The Political Economy of Growth. New Haven: Yale University Press, 1983.

Ostrom, Vincent. The Political Theory of a Compound Republic. Blacksburg, Virginia: Public Choice Society, 1971.

Peltzman, Sam. "Toward a More General Theory of Regulation," Journal of Law and Economics, 1976, 19, pp. 211-240.

Peterson, Paul E. "A Unitary Model of Local Taxation and Expenditure Policies in the United States," British Journal of Political Science, 1979, 9, pp. 281-314.

Peterson, Paul E. City Limits. Chicago: The University of Chicago Press, 1981.

Pryor, Frederick L. "A Quasi-Test of Olson's Hypothesis," in Mueller, Dennis C., The Political Economy of Growth. New Haven: Yale University Press, pp. 90-108.

Public Sector Consultants. Michigan Property Tax Exemptions and Their Effect: Final Report. Lansing: Public Sector Consultants, Incorporated, July 1986.

Rae, Douglass W. The Political Consequences of Electoral Laws. New Haven: Yale University Press, 1967.

Riker, William H. Federalism: Origin, Operation, Significance. Boston, Mass.: Little, Brown and Company, 1964.

Riker, William H. The Art of Political Manipulation. New Haven: Yale University Press, 1986.

Ripley, Randall B., and Franklin, Grace A. Congress, the Bureaucracy, and Public Policy. 3rd. ed. Homewood: The Dorsey Press, 1984.

Rourke, Francis E. Bureaucracy, Politics, and Public Policy. Boston: Little, Brown and Company, 1976.

Samuelson, Paul A. "The Pure Theory of Public Expenditure," Review of Economics and Statistics, Nov. 1954, 36, pp. 386-389.

Samuelson, Paul A. "Diagrammatic Exposition of a Theory of Public Expenditures," Review of Economics and Statistics. 1955, 37, pp. 350-356.

Schattschneider, E.E. The Semi-Sovereign People: A Realists View of Democracy in America. Hinsdale, Illinois: The Dryden Press, 1960.

Schiesl, Martin J. The Politics of Efficiency: Municipal Administration and Reform in America from 1880-1920. Los Angelos: University of California Press, 1977.

Schlesinger, Joseph A. Ambition and Politics: Political Careers in the United States. Chicago: Rand McNally, 1966.

Schneider, Mark. "Fragmentation and the growth of local government," Public Choice., 1986, 48 pp. 255-263.

Sen, Amartya K. Collective choice and Social Welfare. San Francisco: Holden-Day, 1970.

Shepsle, Kenneth A. "Institutional Arrangements and Equilibrium in Multidimensional Voting Models," American Journal of Political Science, 1979, 23, pp. 27-57.

Shepsle, Kenneth A., and Weingast, Barry R. "Structure Induced Equilibrium and Legislative Choice," Public Choice, 1981, 37, pp. 503-519.

Stigler, George J. "Tenable Range of Functions of Local Government," Federal Expenditure Policy for Economic Growth and Stability. Washington D.C.: Joint Economic Committee, Subcommittee of Fiscal Policy, 1957.

Stiglitz, Joseph E. Economics of the Public Sector. New York: W.W. Norton & Company, 1986.

Surrey, Stanley, and McDaniel, Paul. "The Tax Expenditure Concept in the Legislative Process," in The Economics of Taxation, ed. by Henry Aaron and Michael Boskin. Washington, D.C.: Brookings Institute, 1979.

Tiebout, Charles M. "A Pure Theory of Local Expenditures," Journal of Political Economy, Oct. 1956, 64, pp. 416-424.

Thrap, Claude R. A Manual of City Government. Ann Arbor: Bureau of Government of the University of Michigan, 1951.

Tresch, Richard W. Public Finance: A Normative Theory. Plano, Texas: Business Publications Incorporated, 1981.

Tullock, Gordon. Towards a Mathmatics of Politics. Ann Arbor, Michigan.: University of Michigan Press, 1967.

U.S. Bureau of the Census, Census of Population, U.S. Bureau of the Census 1980, vol. 1, pt. 24.

U.S. Department of the Treasury, "1985 Optional State Sales Tax Tables," Instructions for Preparing Form 1040. Washington, D.C.: Internal Revenue Service, Department of the Treasury, 1985, pp. 44-45.

VerBurg, Kenneth., Snyder, Abram P., Alchin, Edmond W., Hotaling, Robert., Sidwell, George., and Goodrich, William. Report to the Michigan State Boundary Commission on the proposed cities of Burton, Carmen, and Genesee. East Lansing, Mich.: Institute for Community Development and Services, Continuing Education Service Michigan State University, February 1970.

Walker, David B. Toward a Functioning Federalism. Cambridge, Mass.: Winthrop, 1981.

Wells, Roger Hewes. American Local Government. New York: McGraw-Hill Book Company, 1939.

Wood, Arthur Evans. Hamtramck: A Sociological Study of a Polish-American Community. New Haven: College and University Press, 1955.

Wright, Deil S. Understanding Intergovernmental Relations. North Scituate, Mass.: Duxbury Press, 1978.

Zodrow, George, ed. Local Provision of Public Services: The Tiebout Model after Twenty-Five Years. New York: Academic Press, 1983.