

# *Kelo* and the Games People Play: A Game-Theoretic Analysis of *Kelo v. City of New London*

DEREK K. YONAI\*

## I. INTRODUCTION

Incentives matter. Economists have always argued that rational individuals respond to incentives. This belief forms one of the basic assumptions of economics: individuals maximize their utility. In a game-theoretic framework, incentives determine what strategies the players of the game will play to maximize their expected payoff. Therefore, if the law changes the nature of the game, the players will choose different courses of action than they would have otherwise. As a result, the changes in the law may create unintended consequences.

The majority opinion in *Kelo v. City of New London*<sup>1</sup> affects the incentives facing real estate developers and local governments. That opinion, written by Justice Stevens, held the taking and transfer of private property from the owner thereof to another private entity, pursuant to an integrated development plan, for the purpose of economic development was sufficient to “satisfy the public use requirement of the Fifth Amendment.”<sup>2</sup>

This article argues that the Court’s holding creates an incentive for private developers to rent-seek by asking local governments to transfer private property to them instead of purchasing it in the private market.<sup>3</sup> Likewise, the Court’s holding creates incentives for local governments to take private property pursuant to their eminent domain powers.

---

\* Lundy Scholar of Business Philosophy and Assistant Professor of Economics, Campbell University. B.A., University of California, Irvine; J.D., *Cum Laude*, Whittier College School of Law; M.A., George Mason University; Ph.D., George Mason University. The author would like to thank Maxwell L. Stearns and the Theoretical Law and Economics session participants at the 2006 Western Economic Association International Meeting for their helpful comments. All errors contained herein are solely the responsibility of the author.

1. 125 S. Ct. 2655 (2005).

2. *Id.* at 2659-60, 2665.

3. Rent-seeking occurs when an individual or a firm engages in purely wasteful activity for the sole purpose of obtaining a wealth transfer or some other benefit. Typically, rent-seeking is applied in cases where the government has created “artificial or contrived rents.” Robert D. Tollison, *Rent-seeking*, in *PERSPECTIVES OF PUBLIC CHOICE* 506, 508 (Dennis C. Mueller ed., 1997).

The majority opinion also noted that if states disagree with the Court's decision, they may use a heightened level of scrutiny above "the federal baseline."<sup>4</sup> This article demonstrates that states may engage in a signaling game to create a separating equilibrium between states that wish to protect private property rights and those who do not. As a result of this game, this article questions whether one may see population shifts between regions and states as people vote with their feet.<sup>5</sup> This article finds that the result of people voting with their feet is, at best, ambiguous or that people may move to states that do not highly protect private property rights.

## II. *Kelo v. City of New London*

In 2000, the City Council of New London, Connecticut, in an attempt to revitalize the city, increase tax revenue, and increase economic growth after the 1996 closure of the Naval Undersea Warfare Center, initiated an economic development plan in the Fort Trumbull area.<sup>6</sup> To implement this plan, the "[N]ew London Development Corporation (NLDC), a private nonprofit entity established some years earlier to assist the city in planning economic development, was reactivated."<sup>7</sup>

"In January of 1998, the State [of Connecticut] authorized a \$5.35 million bond issue to support the NLDC's planning activities and a \$10 million bond issue toward the creation of a Fort Trumbull State Park."<sup>8</sup> One month later, "Pfizer Inc. announced that it would build a \$300 million research facility on a site immediately adjacent to Fort Trumbull . . ."<sup>9</sup> Later that spring, after receiving proper city and state authorization and approval, "the NLDC finalized an integrated development plan focused on 90 acres of the Fort Trumbull area."<sup>10</sup>

The NLDC's finalized plan consisted of seven parcels of property.<sup>11</sup> Parcel 1 consisted of a hotel with conference facilities along the waterfront with a "small urban village."<sup>12</sup> Parcel 2 was planned as an urban residential neighborhood.<sup>13</sup> Parcel 3 contained "at least 90,000

---

4. *Kelo*, 125 S. Ct. at 2668.

5. See generally, Charles Tiebout, *A Pure Theory of Local Expenditures*, 64(5) J. OF POLITICAL ECON. 416 (1956).

6. *Kelo*, 125 S. Ct. at 2658-59.

7. *Id.* at 2659.

8. *Id.*

9. *Id.*

10. *Id.*

11. *Id.*

12. *Id.*

13. *Id.*

square feet of research and development office space”; it was slated to be “located immediately north of the Pfizer facility.”<sup>14</sup> The plan divided Parcel 4 into two sections: parcel 4A was to be either parking or retail space while parcel 4B was to include a “renovated marina.”<sup>15</sup> The remaining parcels (parcels 5-7) contained a mix of office, retail, parking, and other spaces.<sup>16</sup> In January of 2000, the NLDC was instructed to obtain the necessary properties to implement its development plan.<sup>17</sup> It was authorized to either purchase the necessary property or to use eminent domain to obtain the 90-acre area.<sup>18</sup>

Susette Kelo, Wilhelmina and Charles Dery, and six other property owners refused to sell their property.<sup>19</sup> The NLDC initiated condemnation proceedings in November of 2000.<sup>20</sup> Since 1997, Susette Kelo had lived in her home and had made several improvements to it.<sup>21</sup> Wilhelmina Dery had occupied her home since birth in 1918; her husband, Charles Dery, had lived in the home since their marriage.<sup>22</sup> The NLDC did not declare the properties in question as blighted but rather condemned the properties based on their geographic location within Fort Trumbull.<sup>23</sup> In addition, the property owners were not hold-outs and did not oppose the economic development plan, but instead brought suit as a matter of principle.<sup>24</sup>

Kelo and the other property owners filed an action in the New London Superior Court seeking relief from the condemnation proceeding.<sup>25</sup> The trial court gave the property owners a permanent restraining order against the NLDC for the property situated in Parcel 4A but allowed the condemnation of property in Parcel 3.<sup>26</sup> Both parties appealed the verdict to the Supreme Court of Connecticut.<sup>27</sup>

The Connecticut Supreme Court overturned the decision of the trial court and held that “all of [New London’s] proposed takings were

---

14. *Id.*

15. *Id.*

16. *Id.*

17. *Id.*

18. *Id.* at 2659-60.

19. *See id.* at 2660.

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.*

24. *Id.* at 2672 (O’Connor, J., dissenting).

25. *Id.* at 2660.

26. *Id.*

27. *Id.*

valid.”<sup>28</sup> The property owners appealed to the Supreme Court of the United States, and it granted certiorari to determine whether the condemnation of the properties by the NLDC “satisfies the ‘public use’ requirement of the Fifth Amendment.”<sup>29</sup>

A. *Justice Stevens’ Majority Opinion*

Justice Stevens reaffirmed the long held American legal tradition that “the sovereign may not take the property of A for the sole purpose of transferring it to another private party B, even though A is paid just compensation.”<sup>30</sup> Stevens also acknowledged that a competing legal doctrine exists where “a State may transfer property from one private party to another if future ‘use by the public’ is the purpose of the taking . . . .”<sup>31</sup> Though he provided the two competing arguments, Stevens, nonetheless, claimed that “[n]either of these propositions . . . determin[ed] the disposition of [the] case.”<sup>32</sup> Since the facts of *Kelo* did not fit into either extreme, Stevens argued that the Court must determine whether the taking fulfills the “public use” requirement of the Fifth Amendment.<sup>33</sup>

However, instead of applying the “public use” test of the Fifth Amendment, Stevens argued that proper analysis necessitated “the broader and more natural interpretation of public use as ‘public purpose.’”<sup>34</sup> He noted the Court had applied this broader standard in Fifth Amendment cases since the end of the nineteenth century.<sup>35</sup> Thus, “the disposition of this case therefore turn[ed] on the question whether the City’s development plan serve[ed] a ‘public purpose.’”<sup>36</sup>

The majority opinion relied upon *Berman v. Parker*<sup>37</sup> and *Hawaii Housing Authority v. Midkiff*.<sup>38</sup> The *Berman* decision held that a government’s determination “that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled” is a legitimate public purpose.<sup>39</sup> The *Berman* decision also held that the government’s development plan must be considered

---

28. *Id.*

29. *Id.* at 2661.

30. *Id.*

31. *Id.*

32. *Id.*

33. *See id.*

34. *Id.* at 2662.

35. *Id.* (citing *Fallbrook Irrigation Dist. v. Bradley*, 164 U.S. 112, 158-64 (1896)).

36. *Id.* at 2663.

37. 348 U.S. 26 (1954).

38. 467 U.S. 229 (1984).

39. *Berman*, 348 U.S. at 33.

in its totality, and Fifth Amendment cases cannot be brought on a “lot by lot, building by building” basis.<sup>40</sup>

In *Hawaii Housing Authority v. Midkiff*, the United States Supreme Court reversed the Ninth Circuit’s ruling that Hawaii’s act was “a naked attempt on the part of the state of Hawaii to take the private property of A and transfer it to B solely for B’s private use and benefit.”<sup>41</sup> In this case, the Court held Hawaii’s desire to eliminate “social and economic evils of a land oligopoly” qualified as a legitimate public purpose.<sup>42</sup> Given the broad interpretation of these holdings, Stevens argued the Court’s “public use jurisprudence ha[d] wisely eschewed rigid formulas and intrusive scrutiny in favor of affording legislatures broad latitude in determining what public needs justify the use of the takings power.”<sup>43</sup>

Stevens argued that *Berman* required the plan in question to be viewed in its entirety and “not on a piecemeal basis.”<sup>44</sup> In addition the cases qualified a taking as meeting a public purpose in three situations: (1) where the locality has a “well balanced” redevelopment plan (as in *Berman*);<sup>45</sup> (2) where the state sought to “[break] up a land oligopoly” to aid the state’s real estate market (as in *Midkiff*);<sup>46</sup> and (3) where the state sought to eliminate a “significant barrier to entry in the . . . market” (as in *Ruckelshaus v. Monsanto*).<sup>47</sup>

The Court argued that while New London may not have faced the same blight as in *Berman*, the City was still distressed, as evidenced by the existence of a comprehensive economic development plan.<sup>48</sup> Given this similarity with *Berman*, the Court argued the City’s development plan must be examined in its entirety instead of narrowly focusing only on what will replace the petitioners’ property.<sup>49</sup> Finding New London possessed a well-deliberated and comprehensive plan, the Court concluded “[b]ecause [the] plan unquestionably serves a public purpose, the takings challenged here satisfy the public use requirement of the Fifth Amendment.”<sup>50</sup>

---

40. *Id.* at 35.

41. *Midkiff*, 467 U.S. at 235 (quoting *Midkiff v. Tom*, 702 F.2d 788, 798 (9th Cir. 1983)).

42. *Id.* at 241-42.

43. *Kelo v. City of New London*, 125 S. Ct. 2655, 2664 (2005).

44. *Id.* at 2665.

45. *Id.*

46. *Id.*

47. *Id.* (citing *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1014-15 (1984)).

48. *Id.* at 2665.

49. *See id.*

50. *Id.*

Stevens also addressed the issue of providing private land to a private entity via condemnation. He argued sometimes the promotion of a public purpose meant property had to be given to private beneficiaries.<sup>51</sup> Stevens further argued precedent in *Berman*, *Midkiff*, and *Monsanto* supported his position.<sup>52</sup> In *Berman*, the Court held the taking was a public use even though it was argued that it was a “taking from one businessman for the benefit of another businessman.”<sup>53</sup> In *Midkiff*, the Court held property could be taken from the original landowners and given to the lessees of the property.<sup>54</sup> Finally, *Monsanto* held private data could be shared to promote market competition.<sup>55</sup> Given this foundation of precedent demonstrating that a public purpose can be achieved by giving condemned property to private parties, Stevens concluded that the facts of *Kelo* were no different.<sup>56</sup> Thus, the transfer to a private party was a non-issue for purposes of a Fifth Amendment takings challenge.<sup>57</sup>

The majority opinion concluded the NLDC plan did not violate the Fifth Amendment; the taking of the petitioners’ property was free of Constitutional infirmity.<sup>58</sup> Public purpose was thus held to encapsulate governmental economic development. The NLDC’s plan was not hindered by the fact that the property would be transferred to another private party.

#### B. Justice Kennedy’s Concurring Opinion

In a concurring opinion, Justice Kennedy joined the majority but noted several points of concern. First, Kennedy observed that a taking must be rationally related to a public purpose as outlined in *Midkiff*.<sup>59</sup> Kennedy reminded the Court that the value of the rational basis test was its provision of a standard to prevent takings that are “intended to confer benefits on particular, favored private entities, and with only incidental or pretextual public benefits . . . .”<sup>60</sup>

After noting this concern, Kennedy then applied the rational basis test to the facts before the Court in *Kelo*. He concluded that the NLDC plan was rationally related to the public purpose of economic develop-

---

51. *Id.* at 2666.

52. *Id.*

53. *Id.* at 2666 (citing *Berman*, 348 U.S. at 33).

54. *Midkiff*, 467 U.S. at 243-45.

55. *Monsanto*, 467 U.S. at 1014.

56. *Kelo*, 125 S. Ct. at 2666.

57. *Id.* at 2668.

58. *Id.* at 2668-69.

59. *Id.* at 2669 (Kennedy, J., concurring) (citing *Midkiff*, 467 U.S. at 241).

60. *Id.*

ment because an investigation by the trial court found that the main purpose of the development plan was not designed to aid Pfizer, but rather to aid the surrounding community by taking advantage of the growth potential created by Pfizer's presence.<sup>61</sup> In Kennedy's view, the petitioners erred in their belief that *Berman* and *Midkiff* did not limit the government's condemnation power.<sup>62</sup> The rational basis test set forth in *Midkiff* provided that limit.<sup>63</sup> While Kennedy opined that cases of economic development did not necessitate a higher standard of review, he did acknowledge the Court's decision "[did] not foreclose the possibility that a more stringent standard of review . . . might be appropriate for a more narrowly drawn category of takings."<sup>64</sup>

### C. Justice O'Connor's Dissenting Opinion

Chief Justice Rehnquist, Justice Scalia, and Justice Thomas joined in Justice O'Connor's dissent.<sup>65</sup> O'Connor argued that for the Public Use Clause to have any substance, there must be some judicial check on what qualifies as a public use as opposed to a private use.<sup>66</sup> She outlined three historical categories that qualify as legitimate public uses. The first category is where the "sovereign may transfer private property to public ownership."<sup>67</sup> The second category is where "the sovereign may transfer private property to private parties, often common carriers, who make the property available for the public's use — such as with a railroad, a public utility, or a stadium."<sup>68</sup> The third category is where "in certain circumstances and to meet certain exigencies, takings that serve a public purpose also satisfy the Constitution even if the property is destined for subsequent private use."<sup>69</sup> *Berman* and *Midkiff* fall under the last category of cases.<sup>70</sup>

O'Connor argued *Kelo* was a case of first impression because its facts did not fit within the three categories of legitimate public uses.<sup>71</sup> According to O'Connor, the real question before the Court was, "[are] economic development takings constitutional?"<sup>72</sup> In answering this

---

61. *See id.*

62. *See id.*

63. *See id.* at 2670.

64. *Id.*

65. *Id.* at 2671 (O'Connor, J., dissenting).

66. *Id.* at 2672.

67. *Id.* at 2673.

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.* at 2672.

question, O'Connor distinguished *Kelo* from *Berman* and *Midkiff*. She argued *Berman* and *Midkiff* satisfied the Public Use Clause because in "those cases, the extraordinary, pre-condemnation use of the targeted property inflicted affirmative harm on society – in *Berman* through blight resulting from extreme poverty and in *Midkiff* through oligopoly resulting from extreme wealth."<sup>73</sup> The takings in those cases "w[ere] necessary to remedy the harm."<sup>74</sup> The public purpose fulfilled in those cases was the removal of said harm.<sup>75</sup> According to O'Connor, Susette Kelo's and Wilhelmina Dery's homes "[were] not a source of any social harm."<sup>76</sup>

O'Connor concluded, because *Kelo* did not fit within the exceptional circumstances of *Berman* and *Midkiff* and did not fit the other legitimate categories of public use, the Court had expanded the meaning of public use.<sup>77</sup> She asserted that the Court had legitimized the government's action of taking private property and giving it to another private party for private use as long as the public tangentially benefits from the transfer.<sup>78</sup> Given this broad definition, O'Connor argued that no constraint exists on the government's eminent domain power.<sup>79</sup>

O'Connor further observed that the possible limitations on eminent domain were weak at best. She pointed out the majority's test of whether the transfer's "sole purpose is to bestow a benefit on a private transferee" is impotent because the Court never explained how to engage in such analysis.<sup>80</sup> In addition, the rational basis test and possible increase of scrutiny postulated by Justice Kennedy was also weak because Kennedy never explained the facts that would justify such heightened scrutiny - he only knew the facts in *Kelo* did not qualify.<sup>81</sup>

O'Connor saw the second limitation imposed by the Court to be that eminent domain can only be used to improve property. She believes this makes the Public Use Clause "[a]t best . . . redundant with the Due Process Clause . . ." or, at worst, "ha[ving] no realistic import."<sup>82</sup> She argued the effective result of the majority's opinion was that the "specter of condemnation [would] [hang] over all property";

---

73. *Id.*

74. *Id.*

75. *See id.*

76. *Id.* at 2674-75.

77. *See id.*

78. *See id.* Examples of this tangential benefit include: "increased tax revenue, more jobs, and maybe even aesthetic pleasure." *Id.*

79. *See id.*

80. *Id.* at 2675.

81. *See id.*

82. *Id.* at 2676.

this was necessarily so because under the majority's analysis, any property could be condemned if anyone could argue that he or she could put the property to a more profitable use than the landowner.<sup>83</sup> In O'Connor's view, there was nothing "to prevent the State from replacing any Motel 6 with a Ritz-Carlton."<sup>84</sup>

O'Connor also dismissed the Court's dicta to the effect that states could provide a higher level of protection than the Constitution if they so desired.<sup>85</sup> She argued that, by passing this issue to the states, the Court was acting irresponsibly.<sup>86</sup> Additionally, O'Connor argued that while the United States has a system of federalism, the states should not have to deal with problems created by the Court's "refusal to enforce . . . the Federal Constitution . . . ."<sup>87</sup>

#### D. Justice Thomas' Dissenting Opinion

Justice Thomas' dissent was based more on jurisprudential philosophy than on the precedent before the Court.<sup>88</sup> Thomas argued the line of cases relied upon by the majority were unreasoned.<sup>89</sup> He argued under such circumstances, the Court should instead rely upon the original meaning of the Constitution.<sup>90</sup> For the purposes of this article, a detailed discussion of Thomas' dissent is not necessary.

### III. ECONOMIC ANALYSIS

The *Kelo* decision offers an opportunity to analyze, economically, what may result from the Court's decision. Given the discussion above, the result of the case is a local government or private entity (bestowed with eminent domain powers) possessing an integrated plan may condemn private property for economic development. This standard of scrutiny is not very difficult to meet and virtually any plan that involves economic improvement may satisfy this standard. If one takes Justice O'Connor's dissent seriously, there is no *de facto* limitation on condemnation.

Given the possible scenarios painted by O'Connor, one can examine whether her fears are unfounded or whether private property owners should have serious concerns about the protection of their

---

83. *Id.*

84. *Id.*

85. *Id.* at 2677.

86. *Id.*

87. *Id.*

88. *Id.* at 2677-86 (Thomas, J., dissenting).

89. *Id.* at 2682-86.

90. *See id.* at 2687.

property from real estate developers. This portion of the article examines how the *Kelo* decision may change the incentives faced by local governments and real estate developers using the analytical tool of game theory.

A. *Brief Primer on Game Theory*

“Game theory can be defined as the study of mathematical models of conflict and cooperation between intelligent rational decision-makers.”<sup>91</sup> Game theory asks the question of what happens when rational, utility-maximizing individuals or groups interact with each other.<sup>92</sup> When setting up a game in normal form (as a matrix), three elements must exist: the game must have “a list of participants or players”<sup>93</sup>; “for each player, a list of strategies”<sup>94</sup>; and “for each array of strategies, one for each player, a list of payoffs that the players receive.”<sup>95</sup> This simply means the game needs players who have choices (or moves) that earn them particularized payoffs given what the other players of the game choose to do.

In order to solve these games, one must find the Nash equilibrium of the game.<sup>96</sup> “A Nash equilibrium is an array of strategies, one for each player, such that no player has an incentive (in terms of improving his own payoff) to deviate from his part of the strategy array.”<sup>97</sup> To find the Nash equilibrium in a normal form game, one can use a “brute-force approach.”<sup>98</sup> This means that “for each player, and for each feasible strategy for that player, [one must] determine the other player’s best response to that strategy.”<sup>99</sup> Each cell of the game that possesses the best response for all players is a Nash equilibrium.

Another game form discussed in this article is an “extensive form” game or, more simply, a game that appears in the shape of a tree. Extensive form games differ from normal form games because extensive form games involve a timing component whereas normal form

---

91. ROGER B. MYERSON, *GAME THEORY: ANALYSIS OF CONFLICT* 1 (1991).

92. See Douglas G. Baird, Robert H. Gertner & Randal C. Picker, *Game Theory and the Law* 1 (1994).

93. DAVID M. KREPS, *GAME THEORY AND ECONOMIC MODELING* 10 (1990).

94. *Id.*

95. *Id.*

96. See KREPS, *supra* note 93, at 28.

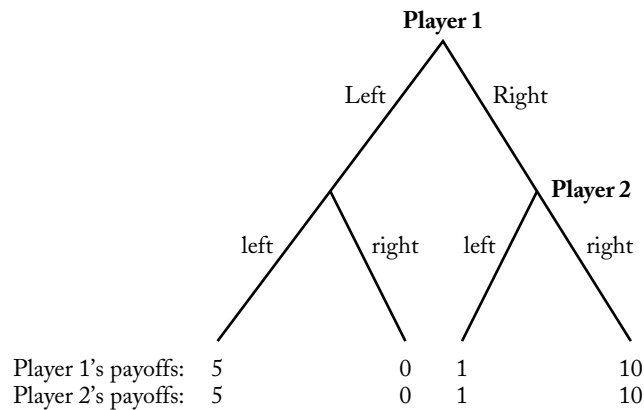
97. *Id.* A more intuitive way to think about it is that a Nash equilibrium occurs when “each player’s strategy is a best response to the other’s” best response. ROBERT GIBBONS, *GAME THEORY FOR APPLIED ECONOMISTS* 9 (1992).

98. GIBBONS, *supra* note 97, at 9.

99. *Id.*

games do not.<sup>100</sup> In the normal form games, the players move simultaneously; whereas, the players move in a specified order in extensive form games.<sup>101</sup> An extensive form game has nodes from which arrows or lines emanate.<sup>102</sup> These nodes are called decision nodes because from each node the player, at that node, must make a decision.<sup>103</sup> The lines or arrows from a given node represent a given player's strategies at that location.<sup>104</sup> These games follow two general rules: (1) each decision node must have at least one strategy coming from it; and (2) beginning from an arbitrary decision node, one can never backtrack to it; one must end up at the beginning of the game.<sup>105</sup>

Like the normal form game, an extensive form game also will have a Nash equilibrium but the method of finding it differs. Extensive form games are generally solved using backwards induction.<sup>106</sup> Essentially this means that, instead of attempting to solve the game from the beginning, one examines the game from the end and works her way back to the beginning of the game. In this process one must ask what are the best responses for each player given the best response of the player who moves after her.<sup>107</sup> For example:



In this game, we can see that Player 2 will pick left if Player 1 picks Left because her payoff of 5 is greater than 0 if she plays right. Likewise, Player 2 will pick right if Player 1 picks Right because her payoff of 10

100. See KREPS, *supra* note 93, at 13.

101. See *id.* at 21.

102. See GIBBONS, *supra* note 97, at 117.

103. See *id.*

104. See KREPS, *supra* note 93, at 14.

105. See *id.* at 14.

106. See GIBBONS, *supra* note 97, at 57.

107. See *id.* at 60.

is greater than the payoff of 1 if she picks left. Knowing what Player 2 will do in either case, Player 1 will pick Right given it will bring him a payoff of 10 (since Player 2 will also pick right) as opposed to the payoff of 5 from playing Left. The Nash equilibrium in this game is where Player 1 plays Right and Player 2 plays right.

In both of the game forms discussed above, there are two implicit assumptions underlying the games. The first is that the players have common knowledge.<sup>108</sup> This simply means “all the players are rational, but also that all the players know that all the players are rational, and that all the players know that all the players know that all the players are rational, and so on, *ad infinitum*.”<sup>109</sup> The second assumption is that all players possess perfect information.<sup>110</sup> This means “that at each move in the game the player with the moves knows the full history of the play of the game thus far.”<sup>111</sup> The game theoretic discussion that follows will further discuss the impact of each of the implicit assumptions on the relevant games.

#### B. *Rent-Seeking Games*

While developed law and economics literature exists on eminent domain, it does not apply to the analysis of this case. The literature tends to discuss the role of compensation in eminent domain cases.<sup>112</sup> According to Thomas Miceli, the first formal analysis was done by Lawrence Blume, Daniel Rubinfeld, and Perry Shapiro in 1984.<sup>113</sup> The initial analysis done by Blume, Rubinfeld, and Shapiro focuses on the role compensation plays upon property use incentives; they conclude that no compensation results in the landowner making efficient investment decisions.<sup>114</sup> They also argue that if the government must pay the full value of the property to that property owner, the government will engage in an efficient amount of condemnations.<sup>115</sup> The problem with the line of articles that follow this tradition is that compensation

---

108. See GIBBONS, *supra* note 97, at 7.

109. *Id.*

110. See GIBBONS, *supra* note 97, at 57.

111. *Id.* at 55.

112. See generally Lawrence Blume, Daniel Rubinfeld & Perry Shapiro, *The Taking of Land: When Should Compensation be Paid?*, 99 QUARTERLY JOURNAL OF ECONOMICS 71-92 (1984) [hereinafter Blume, Rubinfeld & Shapiro, *The Taking of the Land*]; William A. Fischel and Perry Shapiro, *Takings, Insurance, and Michelman: Comments on Economic Interpretations of “Just Compensation” Law*, 17 JOURNAL OF LEGAL STUDIES 269-93 (1988); and THOMAS J. MICELI, *ECONOMICS OF THE LAW* (1997).

113. See MICELI, *supra* note 112, at 139.

114. See *id.*

115. See generally, Blume, Rubinfeld & Shapiro, *The Taking of Land*, *supra* note 112.

is not an issue in this case. The issue here revolves around the incentives created by this new lower level of judicial scrutiny. Therefore, one must examine if the *Kelo* decision creates incentives for rent-seeking behavior. This issue will be examined using a coordination game and a game of incomplete information.

This section will first analyze what the relevant actors will do given rent-seeking incentives. "Rent seeking was first discussed systematically by Gordon Tullock."<sup>116</sup> Typically, rent-seeking is applied to circumstances where the government has created "artificial or contrived rents."<sup>117</sup> Rent-seeking is a broad concept used to analyze the behavior within families regarding rivalry for inheritance rights. It also illustrates how, in certain labor markets, employees jockey for position to get certain jobs.<sup>118</sup> Rent-seeking implies that resources will be used to obtain the "artificial or contrived rents" created by government.<sup>119</sup> Such an expenditure of resources is typically considered wasteful and costly.

### 1. *Coordination Game Approach*

One can view rent-seeking as a coordination game.<sup>120</sup> A coordination game occurs when "each player has the same number of actions, which can be indexed so that it is a strict Nash equilibrium for the players to play actions having the same index."<sup>121</sup> An example of such a game is the following:

Let there be two players (1,2) with two strategies (L,R). Let the payoffs for (1) be  $a_{LR}$  and for (2)  $b_{LR}$ . In this game,  $a_{LL} > a_{LR}$ ,  $a_{RR} > a_{RL}$ ,  $b_{LL} > b_{RL}$ ,  $b_{RR} > b_{LR}$ . In normal form, the game is represented by:

---

116. DENNIS C. MUELLER, PUBLIC CHOICE II 229 (1989).

117. Robert D. Tollison, *Rent Seeking*, in PERSPECTIVES ON PUBLIC CHOICE, 506, 508 (Dennis C. Muller ed., 1997).

118. *Id.*

119. *Id.*

120. See Jose Casas-Pardo & Juan D. Montoro-Pons, *On Norms and Coordination Games: A Rent-Seeking Approach*, 12 CONST. POL. ECON. 237 (2001).

121. H. PEYTON YOUNG, INDIVIDUAL STRATEGY AND SOCIAL STRUCTURE: AN EVOLUTIONARY THEORY OF INSTITUTIONS 40 (1998).

<b>Player 2</b>							
L                      R							
<b>Player 1</b>	<table style="border-collapse: collapse; width: 100%; height: 100%;"> <tr> <td style="border-right: 1px solid black; padding: 10px; vertical-align: middle;">L</td> <td style="padding: 10px; text-align: center;"> <math>a_{LL}, b_{LL}</math> </td> <td style="padding: 10px; text-align: center;"> <math>a_{LR}, b_{LR}</math> </td> </tr> <tr> <td style="border-right: 1px solid black; padding: 10px; vertical-align: middle;">R</td> <td style="padding: 10px; text-align: center;"> <math>a_{RL}, b_{RL}</math> </td> <td style="padding: 10px; text-align: center;"> <math>a_{RR}, b_{RR}</math> </td> </tr> </table>	L	$a_{LL}, b_{LL}$	$a_{LR}, b_{LR}$	R	$a_{RL}, b_{RL}$	$a_{RR}, b_{RR}$
L	$a_{LL}, b_{LL}$	$a_{LR}, b_{LR}$					
R	$a_{RL}, b_{RL}$	$a_{RR}, b_{RR}$					

The coordination game used in this analysis will make several assumptions. The first assumption is that there are no hold-out problems.<sup>122</sup> The second assumption is that local governments prefer developers to privately purchase property as opposed to condemning property.<sup>123</sup> The third assumption is property costs less in a condemnation action as opposed to a private sale even if the developer fully compensates the government for the taking.<sup>124</sup> The final assumption is that the private developer incurs no cost to ask for condemnation.

In this game, both a private developer and the local government want to invest in an area of a city and help economically develop the area. The developer and the local government possess a well-integrated plan for economic development. The only issue facing them is how to acquire the property necessary to act upon their plan.

122. This is in line with the facts of *Kelo* as stated in O'Connor's dissent. *Kelo v. City of New London*, 125 S. Ct. 2655, 2671 (2005) (O'Connor, J., dissenting).

123. This is because while economic development probably will help politicians earn more votes due to concentrated benefits, it will also cost them votes due to the harm imposed on landowners of condemned property and the dispersed cost of higher taxes to pay compensation for the taking.

124. The rationale behind this assumption is based on behavioral law and economics literature. If the homeowners suffer from the endowment effect, they value their property more than the market because they own it. From this, it naturally follows that fair market value will always be less than the amount they would be willing to accept. Daniel Kahneman et al., *Experimental Tests of the Endowment Effect and the Coase Theorem*, in *BEHAVIORAL LAW AND ECONOMICS* 211, 213 (Cass R. Sunstein ed., 2001).

Consider, for example, the following hypothetical. Suppose there are two players: Developer and Government. They each have two strategies. Developer can obtain property through a private transaction or she can rent-seek and ask for condemnation. Government can deny condemnation or it can grant condemnation. Developer obtains positive utility if she can correctly coordinate with Government and vice versa.

If Developer uses a private contract, she receives positive utility if Government denies condemnation because she will obtain the land, albeit at a higher price than if it were condemned; Government will receive positive utility as well because it will not have embarrassed itself by granting condemnation when it was unnecessary. If Developer uses a private contract and Government grants condemnation then, again, she receives positive utility because she will obtain the land, albeit at a higher price; Government will receive a lower level of utility because it will have embarrassed itself by condemning property when there was no hold-out problem. However, that embarrassment is tempered by the payoff of future development. If Developer seeks condemnation and Government does not grant it, she receives negative utility since she will not get the land; likewise, Government receives negative utility because it could have spurred economic development and failed to do so. If Developer seeks condemnation and Government grants it, she receives positive utility and obtains the land at a lower price; likewise, Government receives positive utility because it spurred economic development.

The game will have the following structure in normal form:

		Government	
		Deny	Grant
Developer	Private Contract	B, A	B, C
	Seek Condemnation	-A, -A	A, B

In this game, the payoffs A, B, and C are positive integers; A being greater than B, B being greater than C. As one can see from the game, there are three Nash equilibria, including two pure Nash equilibria at (Private Contract, Deny) and (Seek Condemnation, Grant). To determine which Nash equilibrium will most likely be the outcome in this case, one will need to determine which outcome is a focal point.<sup>125</sup>

Michael Chwe offers the following perspective: “[t]o understand how people solve coordination problems, we should thus look at social processes that generate common knowledge” because this will help the players find the focal point.<sup>126</sup> Chwe argues that generating common knowledge involves some sort of communication; however, even “[s]uccessful communication sometimes is not simply a matter of whether a given message is received. It also depends on whether people are aware that other people also received it.”<sup>127</sup> He argues common knowledge-generating mechanisms may be a ritual or a ceremony.<sup>128</sup> Chwe also argues that advertisements may help generate common knowledge and that using strong links to disseminate information also help generate common knowledge.<sup>129</sup>

Kaushik Basu’s work also supports this analysis. Basu argues, “in a nation with the reputation for laws being implemented effectively, a new law can quickly become effective.”<sup>130</sup> Once a new law becomes effective, it “influenc[es] beliefs and creat[es] focal points . . . [and] direct[s] society to some existing equilibrium.”<sup>131</sup>

The *Kelo* result has been publicized on national television and has been the topic of debate in the media since the Court announced its decision. Arguably, the decision has received as much public media attention as some product commercials. In addition, because *Kelo* was a United States Supreme Court decision upholding the Connecticut Supreme Court, one may infer credible implementation of this decision by the government. Given the publicity and implementation by the government, it follows that sufficient common knowledge has been

---

125. See THOMAS C. SCHELLING, *THE STRATEGY OF CONFLICT* 57 (1980). Schelling argues that “[m]ost situations—perhaps every situation for people who are practiced at this kind of game—provide some clue for coordinating behavior, some focal point for each person’s expectation of what the other expects him to expect to be expected to do.” *Id.*

126. MICHAEL SUK-YOUNG CHWE, *RATIONAL RITUAL* 3 (2001).

127. *Id.* at 9.

128. *Id.* at 23-7.

129. *Id.* at 37.

130. KAUSHIK BASU, *PRELUDE TO POLITICAL ECONOMY* 124 (2000).

131. *Id.* at 120.

generated such that a focal point in the (Seek Condemnation, Grant) outcome may exist.

Given the likely focal equilibrium, one should expect the *Kelo* decision to result in an increase in the number of takings for economic development purposes. In addition, developers will have an increased incentive to engage in rent-seeking behavior to obtain the property at a lower price because this will allow them to bypass the higher price (created by the endowment effect) of purchasing the property through private contract.

## 2. *Game of Incomplete Information Approach*

While the coordination game may tease out the general effects of the *Kelo* decision, a more realistic approach may be to analyze the factual scenario as a game of incomplete information. This is so because developers may not necessarily know what type of local government they will be playing against. In this game, developers do not know whether the local government is predisposed to condemning property post-*Kelo* or whether they are predisposed to refuse condemnation as a backlash to the *Kelo* decision.

This analysis will make several assumptions. The first assumption is that there are no hold-out problems. The second assumption is that developers do not know what type of government they are playing against; nature will make that determination based on a probability distribution between zero and one.<sup>132</sup> The third assumption is that local governments prefer developers to privately purchase property as opposed to resorting to condemning property.<sup>133</sup> The fourth assumption is property costs less in a condemnation action as opposed to a private sale even if the developer fully compensates the government for the taking. The final assumption is that the firm incurs no cost to ask for condemnation.

The players in this game are: Nature, Developer, and Government. In this game, Nature will move first. Nature will pick, based on a probability distribution, between zero (0) and one (1), what type of Government the Developer will play against. Nature can pick a Government who is not predisposed to condemning property or it can pick a Government who is predisposed to condemning property. After

---

132. In these types of models, the probabilistic move made by nature is used to “capture the idea that . . . [Developer] is uncertain about the characteristics of . . . [Government].” DAVID M. KREPS, *A COURSE IN MICROECONOMIC THEORY* 464 (1990). In games of incomplete information, nature selects which type of Government Developer must play against. *Id.*

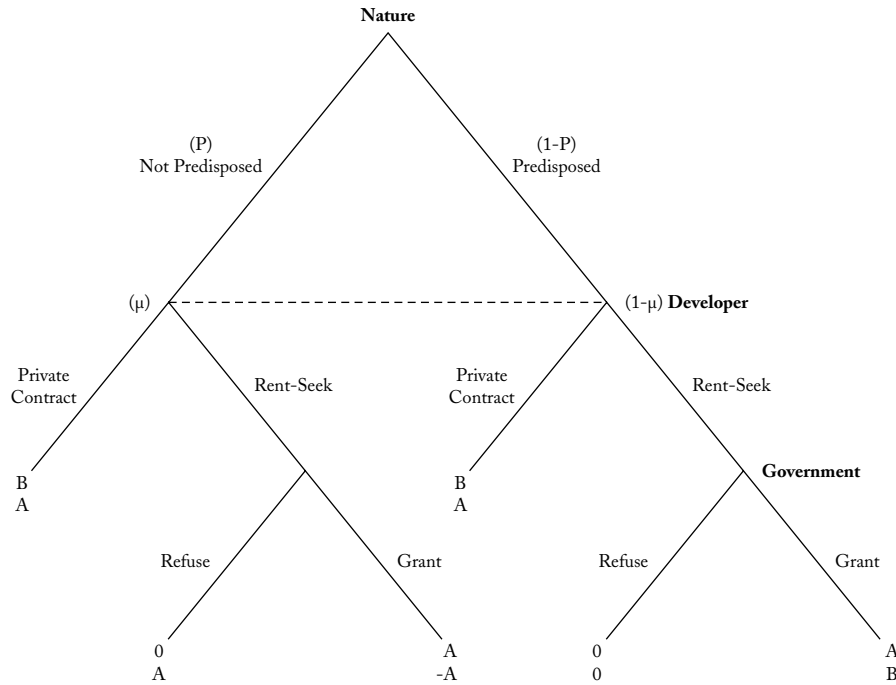
133. KREPS, *supra* note 93, at 13.

Nature moves, Developer moves and does not know what type of Government she is playing against. Developer can either purchase property via a private contract or she can rent-seek and ask for a property transfer via condemnation; if Developer picks to purchase property via a private contract, the game ends. If Developer chooses to rent-seek, Government will pick between refusing to condemn or condemning property.

Summarizing the payoffs:

- If Developer rent-seeks and Government refuses, she gets zero, regardless of what type of Government she is playing against because she does not receive the property.
- If Developer rent-seeks and Government condemns the property, she earns a higher payoff than if she privately contracted, in both cases, because it costs less than engaging in a private contract.
- If Developer rent-seeks and Government refuses to condemn, the non-predisposed Government receives a high payoff because it supported its belief in defending private property.
- If Developer rent-seeks and Government refuses to condemn, the predisposed Government receives a payoff of zero because they would have preferred to condemn the land given the opportunity but failed to do so.
- If Developer rent-seeks and Government condemns, the non-predisposed Government will earn a negative payoff because they violated their belief in protecting private property and their voters will punish them in the next election cycle.
- If Developer rent-seeks and Government condemns, the predisposed Government earns a positive payoff but it is smaller than if Developer had privately contracted because condemning may probabilistically cost it votes in the next election cycle.

In extensive form, the game is as follows:



In the game, payoffs  $A$  and  $B$  are positive integers where  $A$  is greater than  $B$  and Developer's payoffs are listed above Government's payoffs. To solve this game, one must find the probability of what type of Government Developer is playing against and Developer's belief of what type of Government she is playing against. Based on this belief, Developer will engage in a private contract or will rent-see. To solve this, the weak perfect Bayesian equilibrium (WPBE) must be found. This can be found by equating Developer's expected utility for playing private contract and her expected utility of rent-seeking and solving for the probability of playing against a non-predisposed Government.

Developer's expected utility of using a private contract is:

$$EU_{Private} = P(B) + (1-P)B \quad (\text{Equation 1})$$

Developer's expected utility of rent-seeking is:

$$EU_{Rent-Seeking} = P(0) + (1-P)A \quad (\text{Equation 2})$$

Setting them equal to each other:

$$P(B) + (1-P)B = P(0) + (1-P)A \quad (\text{Equation 3})$$

Solving for  $P$  gives:

$$P=1-\frac{B}{A} \quad (\text{Equation 4})$$

The WPBE stated formally is

$$P>1-\frac{B}{A},$$

Private Contract with beliefs

$$\mu>1-\frac{B}{A}.$$

This means Developer will privately contract for the property using the market if she believes that the probability of getting a Government that is not predisposed to condemning property is greater than or equal to

$$1-\frac{B}{A}.$$

However, if she believes

$$P<1-\frac{B}{A},$$

she will rent-seek. The *Kelo* decision may have increased the amount of rent-seeking engaged in by Developer because the Court, in its decision to expand the public use standard, effectively reduced  $P$ . This reduction in  $P$  occurs because more governments may be willing to condemn land for economic development given they know that their condemnation will be held to have no constitutional infirmity.

The result of the game of incomplete information is developers will engage in private contracts if they sufficiently believe they will face a government that is not predisposed to condemning private property. However, if their belief is weak, then it would be optimal for developers to rent-seek and ask the government to condemn the property and transfer it to them because of the increased likelihood of playing against a government predisposed to condemning property.<sup>134</sup> The decision in *Kelo*, by legitimizing this kind of taking, may have reduced

---

134. The actual probability value depends on the actual payoffs received by the players. This will depend on empirical data.

the probability of a local government not being predisposed to condemn. This would then result in an increase in rent-seeking by developers and condemnations by local governments.

### C. *Federalism Signaling Game*

The majority opinion, almost as an afterthought, argued that if people find the expanded Constitution baseline too low, nothing prevents them from seeking higher protection from their state constitution.<sup>135</sup> While Justice O'Connor finds this part of the majority decision as "an abdication of [the Court's] responsibility[.]" it has the potential to salvage the opinion.<sup>136</sup> While the Court places the burden of higher protection on the states, it also allows the states to rectify a federal mistake. The blessing of dual sovereignty may save property owners in America from the majority opinion. In essence, Justice Stevens sets up a game where states can signal their level of property rights protection and allow Tiebout voting, i.e., voting with your feet, to operate.<sup>137</sup>

If one assumes that immediately after *Kelo* all the states begin with the same baseline of property protection, some states may find it in their interests to separate themselves from the pooling outcome. To accomplish this, the states will need some sort of mechanism that creates a separating equilibrium.<sup>138</sup> A commitment to protect property rights exceeding the Federal Constitution baseline may be one way to generate such an outcome.

The states will play a signaling game that establishes a separating equilibrium. In this game, residents and developers are attempting to discern the type of state in which they live.<sup>139</sup> In order for a signal to create a separating equilibrium, the signal must be sufficiently costly for one class of players as compared to another class; this way only one

---

135. *Kelo v. City of New London*, 125 S. Ct. 2655, 2668 (2005).

136. *Id.* at 2677 (O'Connor, J., dissenting).

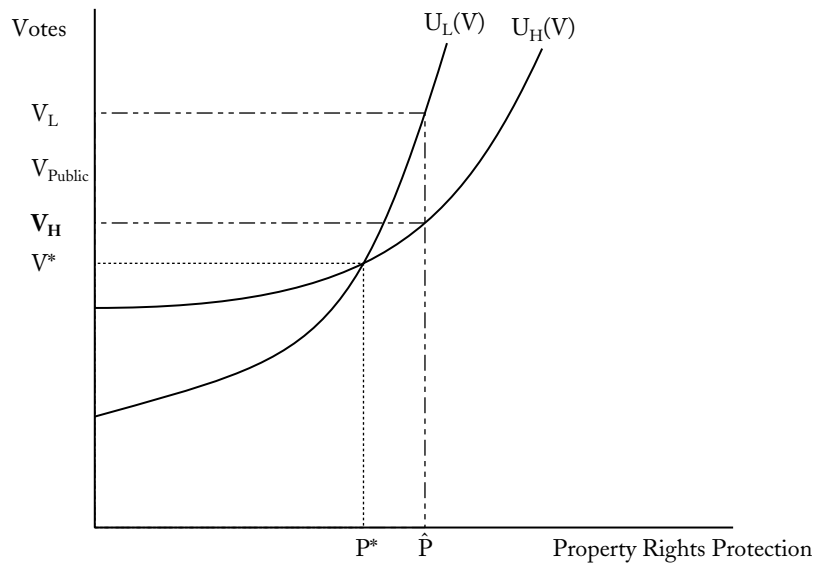
137. *Id.* at 2668 (majority opinion).

138. A separating equilibrium occurs where there are two types of players in a game and one type is able to send a signal to distinguish it from the other type of player in the game. In games that involve this type of equilibrium, the result of the game allows for successful sorting between the two types of players. See ANDREU MAS-COLELL, MICHAEL D. WHINSTON & JERRY R. GREEN, *MICROECONOMIC THEORY* 455 (1995).

139. One should note that if this game is successful, the previous game of incomplete information becomes moot because developers will be able to discern who they are playing against based on an observable signal.

type of player is capable of sending the signal and observers can separate them from the others.<sup>140</sup>

In this game, assume there are two types of players: a high type (H) and a low type (L).<sup>141</sup> Both players receive positive utility through the number of votes ( $V$ ) they receive.<sup>142</sup> However, both players incur some cost in implementing stricter eminent domain laws because they will restrict the government's ability to make policy and reduce their overall power. In this game, high types bear a lower cost of protecting property rights because they are committed to that ideal and are willing to limit a power they seldom use. Low types bear a larger cost because they would prefer to condemn property. The game will take the form of:



In this game assume the level of  $P$  and  $V$  for all states begins at  $P^*$  and  $V^*$  when *Kelo* is decided. At this point, all the states are pooled together in a pooling equilibrium.<sup>143</sup> High-type states do not want to

140. ERIC A. POSNER, *LAW AND SOCIAL NORMS* 19 (2000). In other words, to maintain a stable separating equilibrium, it must be too expensive for one type to engage in the signaling behavior. GIBBONS, *supra* note 97, at 194 (1992).

141. A high type of player corresponds to a state that wants to protect private property. A low type of player corresponds to a state that wants to condemn property for the sake of economic development.

142. This can be viewed as public support for the state and/or politicians.

143. A pooling equilibrium is a state where both types find it best to send the same signal and the low types can trick the other player into thinking it is a high type. GIBBONS, *supra* note 97, at 198-99.

be associated with low-type states after the *Kelo* decision and the voting public is willing to provide  $V_{public}$  votes to states providing at least  $\hat{P}$  level of protection. Under these conditions, since  $V_{public} > V_H$  and  $V_{public} - C[H, \hat{P}] > V_H - C[H, \hat{P}]$  the high-type states will protect private property and create “anti-*Kelo*” laws to prohibit these kinds of takings because doing so provides more utility than high-type states are willing to accept at  $\hat{P}$ .<sup>144</sup> However, because  $V_{public} < V_L$  and  $V^* - C[L, \hat{P}^*] > V_{public} - C[L, \hat{P}]$ , low type states will not enact such measures. This is so because the amount of extra votes they receive for increasing property rights protection costs those states less than implementing the new law. This demonstrates how one may witness a separating equilibrium emerge from this decision where some states will enforce a stricter standard than *Kelo* and others will make use of the low standard set by the Court in *Kelo* to facilitate rent-seeking and thus signal their type by maintaining the status quo.<sup>145</sup>

#### D. Tiebout and Voting with the Feet

Given this result, does the Tiebout model apply? The Tiebout model suggests that one should see rational people move from states that provide a “less attractive public goods-tax package in favor of those providing more attractive packages.”<sup>146</sup> “[N]umerous studies have found that both the levels of public services and tax rates influence *whether* a family moves.”<sup>147</sup> Other studies have demonstrated that the elderly tended to move from high income tax states to no income tax states.<sup>148</sup> In this case, low-type states will tend to have higher taxes to pay for the increased number of takings; in addition, one can view the increased probability of property condemnation as a tax on land given the property right of ownership is more tenuous and less valuable.

Relative to low-type states, high-type states should appear to offer lower taxes because the increased difficulty in condemning land will

144. In each inequality, what is being compared is the marginal benefit of providing more protection versus the marginal benefit of only providing the amount of protection each type is predisposed to provide. In the previous equations, the  $C$  function represents the cost to high type states of providing  $\hat{P}$  level of protection. The same notation will be used to discuss the low type states’ choices in this game and their cost function.

145. This result only holds if the amount of the voting public willing to support politicians or governments who protect property is characterized by:  $V_H \approx V_{public} < V_L$ .

146. DENNIS C. MUELLER, *PUBLIC CHOICE* III 199 (Cambridge University Press 2003).

147. *Id.*

148. See, e.g., Richard J. Cebula, *A Brief Empirical Note on Tiebout Hypothesis and State Income Tax Policies*, 67 *PUBLIC CHOICE* 87-89 (1990).

reduce the need to raise revenue to compensate property owners.<sup>149</sup> These effects would tend to provide an incentive for people to move from low-type states to high-type states. This would result in an overall lower tax base for low-type states. In this way, competition for taxes and population may induce states to increase their respective standards of scrutiny. Thus, federalism works to protect Americans where the Court failed to do so in the *Kelo* decision.

On the other hand, while property is more tenuous and taxes may be higher, the increased economic development may offset any outflow of people. Since increased development should create jobs, the area may become more attractive to new potential residents. With the increase in economic development, better infrastructure and public services may exist in the development zone. These enhancements and increases in public services would tend to attract people to move to the area in spite of the lower standard of property protection.

The major problem with applying the Tiebout model to the *Kelo* decision is that the increased fragility of property rights may not be sufficient to cause people to move from low type states to high type states. The problem with moving (and by default leaving your real property) is that it defeats the purpose of retaining your real property interest. In addition, using a cost-benefit analysis, it is not clear that moving to obtain better property rights protection makes sense. The only way leaving a low type state makes sense is if the expected cost of losing your home is greater than the cost of packing, moving, finding a new job, enrolling your children in a new school, and all the other social costs of leaving a state. The expected cost of losing your home is the difference between what you are willing to accept to sell your house versus what the government determines is the fair market value multiplied by the probability of actually losing your home.

Hypothetically, if that difference is \$100,000 and the probability of you losing your home is estimated at 0.04 percent, then the expected cost of losing your home is \$40.<sup>150</sup> However, the costs of packing, moving, finding a new job, enrolling your children in a new

---

149. This of course assumes two states beginning with equal tax rates prior to *Kelo* and assumes post-*Kelo* that taxes only change to pay compensation.

150. The probability of losing one's home is estimated from the number of petitioners in the *Kelo* case divided by the total population of New London, Connecticut. Given that these nine people did not want to sell, they are a proxy for those who would not accept the government money and would be forced to lose their home against their will. Therefore, dividing that number by the total population of the city provides a rough estimate of the probability of coercively losing one's house in that city. City of New London, Connecticut - Demographics, <http://ci.new-london.ct.us/content/29/71/default.aspx> (last visited Sep. 18, 2006).

school, and all the other social costs of leaving a state are probably greater than \$40. It does not make economic sense to move to a greater protection state. Therefore, one should only expect a few idiosyncratic individuals to move from low protection states to high protection states.

Abandoning one's home seems like an exceptionally costly way to protect property. Since economic development provides collateral benefits, it thereby enhances the public good and possibly overrides any exit movement. In fact, one may actually expect to see an influx of new residents. Given this result, the likelihood of Tiebout voting with one's feet on the property rights protection margin is small at best. The signal sent by the states may only be a token signal or sign of good will as opposed to one meant to be acted upon by property owners.

This would result in the inability of federalism to create an alternative solution to the Court's opinion. States may not reconsider increasing scrutiny if people are not likely to move away from a low type state. For those states, there is little cost to maintain their policy since people are not likely to leave and more people are moving to that state. Given the expected results under the Tiebout model, the argument that federalism may provide an exit from the *Kelo* decision may merely be an illusion.

#### IV. CONCLUSION

The Court's decision in *Kelo* will change the behavior of real estate developers and local governments. The *Kelo* decision will create an environment where developers will have an incentive to engage in more rent-seeking and where local governments will be able to condemn property for economic development with the blessing of the Court. In response, some states will attempt to signal to Americans that they do not stand with the Court on the *Kelo* decision; they will increase their level of scrutiny and make condemnation for economic development purposes illegal. However, it is not clear under the Tiebout model whether people will move from low type states to high type states to create a situation where all states have a competitive incentive to increase their scrutiny from the federal baseline. In fact, it appears that more people may move to a low type state than leave it. If this result is accurate, then federalism may not protect American property owners when the United States Supreme Court failed to do so in *Kelo*.

