

Appendices:

Appendix 1: 2018 Survey Instrument



Code Sheet

Coding indicated in **bold red**. "Check all applicable" questions are coded as (1) for each selected option.

Residential Land-Use Regulation Survey February, 2018

Dear Chief Administrative Officer:

The International City/County Management Association (ICMA), in partnership with the Zell/Lurie Real Estate Center of The Wharton School, University of Pennsylvania, is conducting the following survey to characterize and compare local governments' residential land-use regulations, practices, and procedures. A summary report of aggregated survey results will be published in various ICMA publications and on the ICMA website. Please ensure the success of this survey by completing and returning it by **March 16, 2018**. You may also complete this survey online at www.icma.org/landusesurvey. Consultation with your planning or other appropriate staff to provide the most accurate information is encouraged and appreciated.

Thank you in advance for your time,

A handwritten signature in black ink, appearing to read "Marc Ott".

Marc Ott
Executive Director, ICMA

General Information

1. What is the size of your jurisdiction in square miles? _____
2. How has the size of your jurisdiction in square miles changed since 2000?
 - a. Increased 1
 - b. Decreased 2
 - c. Not changed 3

General Characteristics of Land Regulatory Process

3. In your community, how involved are the following in affecting residential building activities and/or growth management procedures?

Organization	No involvement	Less involvement	Moderate involvement	More involved	Very involved
a. Local Council, Managers, Commissioners	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Community pressure	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. State legislature	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Local courts	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. State courts	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Other	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

3A. If you chose "Other" above, please specify:

4. Which of the following are required to approve residential land-use changes?

Required: Organization is used for any residential land-use changes.

Not Required: If it is not used for that purpose OR does not exist in your community.

Supermajority Required: Any circumstance exists where approval requires more than a simple majority.

For projects that do not require rezoning, i.e., allowed "by-right": (Check one per row)

	Required	Supermajority Required	Not Required
a. Local Planning Commission	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. Local Zoning Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. Local Council, Managers, Commissioners	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. County Board of Commissioners	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. County Zoning Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
f. Environmental Review Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
g. Town Meeting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
h. Public Health Office	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
i. Design Review Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
j. Other	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

4A: If you checked "Other" above, please specify:

For projects that do require rezoning (i.e., rezoning or a variance): (Check one per row)

	Required	Supermajority Required	Not Required
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k. Local Planning Commission	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
l. Local Zoning Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
m. Local Council, Managers, Commissioners	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
n. County Board of Commissioners	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
o. County Zoning Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
p. Environmental Review Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
q. Town Meeting	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
r. Public Health Office	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
s. Design Review Board	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
t. Other	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

4B: If you checked "Other" above, please specify:

5. Do you currently have any of the following in your jurisdiction?

	Yes	No
a. Single-family subdivisions of 50 or more homes	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. Multi-family housing	<input type="checkbox"/> 1	<input type="checkbox"/> 2

Rules of Residential Land Use Regulation

6. Do you have any land currently available for development? a. Yes 1 b. No 2

7. Do you have a minimum lot size requirement? a. Yes 1 b. No 2 (If "No," skip to question 8.)

7A. If "Yes," do you have the same minimum lot size requirement across the entire jurisdiction?

a. Yes 1 b. No 2

7B. If you have any minimum size requirement, what is the largest minimum requirement? (Check only one.)

Less than ½ acre 1 ½ to 1 acre 2 1 to under 2 acres 3 2 acres or more 4

8. Does your community place annual limits on the total allowable number of permits or dwellings

	Yes	No
a. Building permits for single-family homes	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. Building permits for multi-family homes	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c. Number of single-family residential units authorized for construction	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d. Number of multi-family residential units authorized for construction	<input type="checkbox"/> 1	<input type="checkbox"/> 2
e. Number of multi-family dwellings	<input type="checkbox"/> 1	<input type="checkbox"/> 2
f. Number of units in multi-family dwellings	<input type="checkbox"/> 1	<input type="checkbox"/> 2

9. Do developers have to comply with any of the following requirements to build in your jurisdiction?

	Yes	No
a. Include affordable housing, however defined, in their projects	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. Supply mandatory dedication of space or open space (or fee in lieu of dedication)	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c. Pay impact fees (allocable share of costs of infrastructure improvement)	<input type="checkbox"/> 1	<input type="checkbox"/> 2

Specific Characteristics

10. Do you have any zoning laws? a. Yes 1 b. No 2

11. How do you perceive the supply of land zoned for each use listed below compared to the demand for it in your community? (If you checked that the land use does not exist in your jurisdiction in question 5, put a check in the first column and do not fill in that row.)

Unit Type	Land-use is not zoned	Far more than demanded	More than demanded	About right	Less than demanded	Far less than demanded
a. Single-family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
b. Multi-family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
c. Commercial	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
d. Industrial	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

12. Please provide data regarding zoning applications over the past 12 months. (Enter a whole number.)

Application Type	Total Submitted	Total Approved
a. Applications for any zoning changes		
b. Applications for zoning changes regarding NEW development		

Lot Development

13. Have you had any lot development in the last 10 years? a. Yes 1 b. No 2

14. Given your best judgement, how much has the cost of the following types of development increased in the last 10 years? (Check one per row.)

	0% - 20%	21% - 40%	41% - 60%	61% - 80%	81%-100%	Over 100%
a. Lot development, including	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

subdivisions						
b. Single family lots	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

Review Time

15. If no project has been approved in the last 10 years, please check below and proceed to question 18:

No project approved in last 10 years **1**

16. What is the current length of time required to complete the review of a “by-right” (permitted under current rules) residential project? (For both rows, enter a number OR check the box on the right.)

	1 Length of time in months	2 We do not have this type of unit
a. Single-family units		<input type="checkbox"/> 1
b. Multi-family units		<input type="checkbox"/> 1

17. What is the current length of time required to complete the review of a “not by-right” (i.e., would require an exemption to current rules) residential project? (For both rows, enter a number OR check the box on the right.)

	1 Length of time in months	2 We do not have this type of unit
a. Single-family units		<input type="checkbox"/> 1
b. Multi-family units		<input type="checkbox"/> 1

18. Over the last 10 years, how did the length of time required to complete the review and approval of the residential projects in your community change? (Check only one per row.) If you indicated in 5 that the land use does not exist in your jurisdiction, put a check in the first column and do not fill in that row.

Land Use	Land-use is not zoned	Less time	No change	Somewhat longer	Considerably longer
a. Single-family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Multi-family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

19. Does your community allow rezoning? a. Yes **1** b. No **2**

20. What is the typical amount of time between application for rezoning and issuance of a building permit for development of:

Unit Type	We do NOT have this unit	Less than 3 months	3 to 6 months	7 to 12 months	1 to 2 years	2 to 3 years	Over 3 years
a. Less than 50 single-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
b. 50 or more single-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
c. Multi-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

21. Does your community have any subdivisions? a. Yes **1** b. No **2**

22. What is the typical amount of time between application for subdivision approval and issuance of a building permit for development of:

Unit Type	We do NOT have this unit	Less than 3 months	3 to 6 months	7 to 12 months	1 to 2 years	2 to 3 years	Over 3 years
a. Less than 50 single-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
b. 50 or more single-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

c. Multi-family units	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
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23. In case we need to contact you for follow-up, please provide the following information. (Optional)

Name _____ Phone number _____

Title _____ Email _____

Thank you for taking the time to complete this survey!

**Please return the survey to:
 ICMA Survey Research
 777 North Capitol Street, NE, Suite 500, Washington DC 20002-4201
 You may scan and email your survey to surveyresearch@icma.org**

Appendix 2: The Survey Instrument from 2006

Zell/Lurie Real Estate Center
Wharton School, University of Pennsylvania

SURVEY ON RESIDENTIAL LAND-USE REGULATION

JURISDICTION

Name of Jurisdiction _____ Zip Code _____

Type of Jurisdiction _____

(City, County, Township, Town, Village, Borough)

Size of Jurisdiction _____ square miles

Population

Current population estimate _____

Population growth: Past 5 years _____% Projected next 5 years _____%

GENERAL CHARACTERISTICS OF LAND REGULATORY PROCESS

1. In your community, how involved are the following organizations in affecting residential building activities and/or growth management procedures? Please rate the importance of each on a scale of 1 to 5 by circling the appropriate number (1 = not at all involved; 5 = very involved).

- Local Council, Managers, Commissioners	1	2	3	4	5
- Community pressure	1	2	3	4	5
- County legislature	1	2	3	4	5
- State legislature	1	2	3	4	5
- Local courts	1	2	3	4	5
- State courts	1	2	3	4	5

2. Which of the following are required to approve zoning changes, and by what vote?

	Yes	Yes, by simple majority	Yes, by more than simple majority	No
- Local Planning commission				
- Local Zoning Board				
- Local Council, Managers, Commissioners				
- County Board of Commissioners				
- County Zoning Board				
- Environmental Review Board				

3. Which of the following are required to approve a new project that does not need rezoning, and by what vote?

	Yes	Yes, by simple majority	Yes, by more than simple majority	No
- Planning Commission				
- Local Council, Managers, Commissioners				
- County Board				
- Environmental Review Board				
- Public Health Office				
- Design Review Board				

4. On a scale of 1 to 5, please rate the importance of each of the following factors in regulating the rate of residential development in your community (1 = not at all important; 5 = very important). Please circle the appropriate number.

	Single Family Units					Multi Family Units				
	1	2	3	4	5	1	2	3	4	5
- Supply of land										
- Cost of new infrastructure										
- Density restrictions										
- Impact fees/exactions										
- City budget constraints										
- City Council opposition to growth										
- Citizen opposition to growth										
- School crowding										
- Length of review process for zoning										
- Length of review process for building permits										
- Length of review process for land development plan										

RULES OF RESIDENTIAL LAND USE REGULATION

5. Does your community place annual limits on the total allowable:

	Yes	No
- No. of building permits – single family?		
- No. of building permits – multi-family?		
- No. of residential units authorized for construction – single family?		
- No. of residential units authorized for construction – multi-family?		
- No. of multi-family dwellings?		
- No. of units in multi-family dwellings?		

6. To build, do developers have to meet these requirements?

	Yes	No
- Meet the minimum lot size requirement? If yes: ½ acre or more _____ ½ acre or less _____ 1 acre or more _____ 2 acres or more _____		
- Include “affordable housing” (however defined)?		
- Supply mandatory dedication of space or open space (or fee in lieu of dedication)?		
- Pay allocable share of costs of infrastructure improvement?		

SPECIFIC CHARACTERISTICS

7. How does the acreage of land zoned for the following land uses compare to demand?

	Far more than demanded	More than demanded	About right	Less than demanded	Far less than demanded
- Single-family					
- Multi-family					
- Commercial					
- Industrial					

8. How much has the cost of lot development, including subdivisions, increased in the last 10 years?
Please circle the appropriate category.

0-20% 21-40% 41-60% 61-80% 81-100% >100%

9. How much has the cost of a single family lot increased in the last 10 years?
Please circle the appropriate category.

0-20% 21-40% 41-60% 61-80% 81-100% >100%

10. What is the current length of time required to complete the review of residential projects in your community?

For single-family units: _____ months For multi-family units: _____ months

11. Over the last 10 years, how did the length of time required to complete the review and approval of residential projects in your community change?

	no change	somewhat longer	considerably longer
- Single-family units			
- Multi-family units			

12. What is the typical amount of time between application for rezoning and issuance of a building permit for development of:

	Less than 3 mos.	3 to 6 mos.	7 to 12 mos.	13 to 24 mos.	If above 24, How long?
- Less than 50 single family units					
- 50 or more single family units					
- Multi-family units					

13. What is the typical amount of time between application for subdivision approval and the issuance of a building permit (assume proper zoning is already in place) for the development of:

	Less than 3 mos.	3 to 6 mos.	7 to 12 mos.	13 to 24 mos.	If above 24, How long?
- Less than 50 single family units					
- 50 or more single family units					
- Multi-family units					

14. How many applications for zoning changes were submitted in your community in the last 12 months?

15. How many applications for zoning changes were approved in your community in the last 12 months?

In the event we might need to clarify any of the answers to the above questions, we would appreciate the following information, which will be held in total confidence.

Name _____

Title _____

Organization _____

Address _____

Phone _____

Fax _____ E-mail _____

Please check this box if you would like to receive the results of this survey.

Thank you very much for taking the time to complete this survey.

June 2004

APPENDIX 3 – INDEX CONSTRUCTION DETAILS

INDEX	COMPONENT	VARIABLE LONG NAME	DEFINITION	CODE	SOURCE
LPPI	LocalCouncil	Local Council, Managers, Commissioners Involvement	The degree of involvement of the local council, managers, and commissioners in affecting the residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3a of survey
LPPI	CommunityPressure	Community Pressure Involvement	The degree of involvement of community pressure in affecting the residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3b of survey
LPPI	Other	Other Entity	The degree of involvement of some other entity in affecting residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3f of survey
LPPI	BallotInitiatives	Total # of Conservation Initiatives Approved	Number of ballot initiatives passed by the jurisdiction from 2008 to 2018.	# of initiatives	Trust for the Public Land, Landvote database https://tpl.quickbase.com/db/bbqna2qct?a=dbpage&pageID=8
LPPI = <i>LocalCouncil</i> + <i>Community Pressure</i> + <i>Other</i> + <i>BallotInitiatives</i>					
SPII	StateLeg	State Legislature Involvement (STATE AVERAGE)	The degree of involvement of the state legislature in affecting the residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3c of survey
SPII = <i>StateLeg</i>					

Appendix 3 Continued

CII	LocalCourt	Local Court Involvement	The degree of involvement of local court in affecting the residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3d of survey
CII	StateCourt	State Court Involvement	The degree of involvement of state court in affecting the residential building activities and/or growth management procedures of a jurisdiction.	1 = not at all involved; 5 = very involved	Question 3e of survey
CII= LocalCourt + StateCourt					
LPAI	LocalPlan	Local Planning Commission Required to Approve New Projects	The requirement that a local planning commission review and approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4a of survey
LPAI	LocalZone	Local Zoning Board Required to Approve Zoning Changes	The requirement that a local zoning board review and approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4b of survey
LPAI	LocCouncil	Local Council, Managers, Commissioners Required to Approve New Projects	The requirement that local council, managers, or commissioners review and approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4c of survey
LPAI	CountyComm	County Board of Commissioners Required to Approve New Projects	The requirement that the county board review and approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4d of survey
LPAI	CountyZone	County Zoning Board Required to Approve Zoning Changes	The requirement that the county zoning board review and approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4e of survey
LPAI	Environ	Environmental Review Board Required to Approve New Projects	The requirement that an environmental review board approve a new project that does not need rezoning.	Recoded as: 0= not required 1 = required, 2 = required & supermajority	Question 4f of survey

Appendix 3 Continued

LPAI	PubHealth	Public Health Office Required to Approve New Projects	The requirement that the public health office review and approve a new project that does not need rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4h of survey
LPAI	Design	Design Review Board Required to Approve New Projects	The requirement that a design review board approve a new project that does not need rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4i of survey
LPAI	Other	Other Entity	The requirement that some other entity approve a new project that does not need rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4j of survey
LPAI = LocalPlan + LocZone + LocCouncil + CountyComm + CountyZone + Environ + PubHealth + Design + Other					
LZAI	LocalPlan	Local Planning Commission Required to Approve New Projects	The requirement that a local planning commission review and approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4k of survey
LZAI	LocalZone	Local Zoning Board Required to Approve Zoning Changes	The requirement that a local zoning board review and approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4l of survey
LZAI	LocCouncil	Local Council, Managers, Commissioners Required to Approve Zoning Changes	The requirement that local council, managers, or commissioners review and approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4m of survey
LZAI	CountyComm	County Board of Commissioners Required to Approve Zoning Changes	The requirement that the county board of commissioners review and approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4n of survey

Appendix 3 Continued

LZAI	CountyZone	County Zoning Board Required to Approve Zoning Changes	The requirement that the county zoning board review and approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4o of survey
LZAI	Environ	Environmental Review Board Required to Approve Zoning Changes	The requirement that an environmental review board approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4p of survey
LZAI	PubHealth	Public Health Office Required to Approve New Projects	The requirement that the public healthy review board approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4r of survey
LZAI	Design	Design Review Board Required to Approve New Projects	The requirement that a design review board approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4s of survey
LZAI	Other	Other Entity	The requirement that some other entity approve a new project that entails rezoning.	Recorded as: 0= not required 1 = required, 2 = required & supermajority	Question 4t of survey

LZAI= *LocalPlan + LocZone + LocCouncil + CountyComm + CountyZone + Environ + PubHealth + Design + Other*

LAI	TownMeet	Town Meeting Vote Required to Approve Zoning Changes	The requirement that all new projects that entail rezoning be voted on at a meeting of the jurisdiction's citizens	Recorded as: 0 = not required, 1 = required	Question 4q of survey
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LAI= *TownMeet*

Appendix 3 Continued

SRI	SFPermits	Limits on Building Permits, Single Family	Annual limit on the total allowable number of building permits for single family homes.	Recorded as: 0 = no 1 = yes	Question 8a of survey
SRI	MFPPermits	Limits on Building Permits, Multi Family	Annual limit on the total allowable number of building permits for multi family homes.	Recorded as: 0 = no 1 = yes	Question 8b of survey
SRI	SFConst	Limits on Residential Units for Construction, Single Family	Annual limit on the total allowable number of single family residential units authorized for construction.	Recorded as: 0 = no 1 = yes	Question 8c of survey
SRI	MFConst	Limits on Residential Units for Construction, Multi Family	Annual limit on the total allowable number of multi family residential units authorized for construction.	Recorded as: 0 = no 1 = yes	Question 8d of survey
SRI	MFBUILD	Limits on Number of Units in Multi Family Dwellings	Annual limit on the number of single family dwellings.	Recorded as: 0 = no 1 = yes	Question 8e of survey
SRI	MFUNITSDWELL	Limits on Multi Family Dwellings	Annual limit on the number of multi family dwellings.	Recorded as: 0 = no 1 = yes	Question 8f of survey

SRI = *SFPermits* + *MFPPermits* + *SFConst* + *MFConst* + *MFBUILD* + *MFUNITSDWELL*

DRI	minlotsize	Minimum Lot Size Requirement	Whether the community has any minimum lot size requirement	Recorded as described below	Questions 7a & 7b of survey
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DRI=0 if there is no minimum lot size regulation anywhere in the jurisdiction

DRI=1 if there is a minimum, but it is no larger than 0.5 acres

DRI= 2 if there is a minimum, and the largest one is from 0.5-1.0 acre

DRI= 3 if there is a minimum, and the largest one is from 1.0-2.0 acres

DRI= 4, if there is a minimum, and the largest one is for more than 2 acres

Appendix 3 Continued

OSI	OSI	Supply Open Space	Response indicating that developers are required to supply mandatory dedication of open space, or open space, or a fee in lieu of dedication in order to build.	Recorded as: 0= no, 1 = yes	Question 9b of survey
EI	EI	Pay Costs of Improvement	Response indicating that developers are required to pay allocable share of costs of infrastructure improvement in order to build.	Recorded as: 0= no, 1 = yes	Question 9c of survey
AHI	AHI	Affordable Housing	Response indicating that developers are required to include affordable housing, however defined, in their projects in order to build.	Recorded as: 0= no, 1 = yes	Question 9a of survey
ADI	sfprojrev	Length of Residential Review, Single Family	The average length of time required to complete the review of a “by-right” single family residential projects in a jurisdiction.	# of months reported in survey response	Question 16a of survey
ADI	mfprojrev	Length of Residential Review, Multi Family	The average length of time required to complete the review of “by-right” multi-family residential projects in a jurisdiction.	# of months reported in survey response	Question 16b of survey
ADI	nsfprojrev	Length of Residential Review, Single Family	The average length of time required to complete the review of a “not by-right” single family residential projects in a jurisdiction.	# of months reported in survey response	Question 17a of survey
ADI	nmfprojrev	Length of Residential Review, Multi Family	The average length of time required to complete the review of “not by-right” multi-family residential projects in a jurisdiction.	# of months reported in survey response	Question 17b of survey

Appendix 3 Continued

ADI	sfl50	Rezoning Application Time, Less Than 50 Single Family Units	The typical amount of time between application for rezoning and issuance of a building permit for a project with less than 50 single family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 20a of survey
ADI	sfm50	Rezoning Application Time, More Than 50 Single Family Units	The typical amount of time between application for rezoning and issuance of a building permit for a project with more than 50 single family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 20b of survey
ADI	mf	Rezoning Application Time, Multi Family Units	The typical amount of time between application for rezoning and issuance of a building permit for a project with multi family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 20c of survey
ADI	subsf150	Subdivision Approval Time, Less Than 50 Single Family Units	The typical amount of time between application for subdivision approval and the issuance of a building permit for a project with less than 50 single family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 22a of survey
ADI	subsfm50	Subdivision Approval Time, More Than 50 Single Family Units	The typical amount of time between application for subdivision approval and the issuance of a building permit for a project with more than 50 single family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 22b of survey
ADI	submf	Subdivision Approval Time, Multi Family Units	The typical amount of time between application for subdivision approval and the issuance of a building permit for a project with multi family units.	Recorded as: 1.5 = less than 3 months, 4.5 = 3 to 6 months, 9.5 = 7 to 12 months, 18.5 = 1 to 2 years, 24 = more than 2 years	Question 22c of survey

ADI= $\{((sfprojrev + mfprojrev)/2) + ((nsfprojrev + nmfprojrev)/2) + ((sfl50 + sfm50 + mf)/3) + ((subsf150 + subsfm50 + submf)/3)\}/4$

Appendix 4: How Much Does Weighting Matter?

The International City Managers Association (ICMA) sent the 2018 survey instrument to 10,949 of its member municipalities and received 2,825 responses for a response rate of 25.8%.²⁹

The response rates by municipality population are listed below:

Appendix Table 4.1: Survey Response Summary Statistics

Population	Number Surveyed	Number Responding	Response Rate
All	10,949	2,825	25.8%
Over 1,000,000	9	1	11.1%
500,000 - 1,000,000	24	5	20.8%
250,000 - 499,999	44	17	38.6%
100,000 - 249,999	236	78	33.1%
50,000 - 99,999	546	183	33.5%
25,000 - 49,999	1027	311	30.3%
10,000 - 24,999	2327	655	28.1%
5,000 - 9,999	2750	670	24.4%
2,500 - 4,999	3983	905	22.7%
Under 2,500	3	-	0.0%

The median (mean) population of the respondent communities is 8,100 (22,550), which is in line with the median ICMA-member city.

Because of sampling variability and the potential for differential non-response, some researchers may want to use sample weights when analyzing WRLURI data. We investigated three potential sets of weights that help tell us: (1) how representative the overall sample is compared to the universe of localities in the U.S.; (2) how representative is the sample of respondents in CBSAs to the set of all localities located in metropolitan areas; and (3) how

²⁹ ICMA also sent the survey to 2,901 county equivalent governments and received 521 responses (18.0%). These 521 may be traditional county governments (that contain many independently-governed municipalities), consolidated municipality-county governments, or independent municipalities not within a larger county. The latter two categories are classed as county governments, but govern independently, do not contain other localities, and are themselves not part of a larger county. Therefore, we include the 23 consolidated municipality-county or independent municipalities in our sample. We do not include traditional county governments in our dataset because we wish to study the smallest level of local government with authority over local land use and the residential real estate planning/regulatory process.

representative is the sample of respondents in individual metropolitan areas to the universe of localities within each relevant area.

We begin by developing a master list of all U.S. localities. These include Census Designated Places, County Subdivisions,³⁰ consolidated municipality-county governments, and independent municipalities. In total, there are 55,269 localities in our master file. We then create a “respondent” dummy variable set equal to 1 if the locality responded to the ICMA survey. The first step in creating sample weights involves estimating a logit specification that regresses the “respondent” indicator on the following local traits: population, the share of owner-occupied housing, the share of population over 65, the share of population under 18, the share of population that is non-Hispanic white, the share of the over-25 year old population with at least a bachelor’s degree, median household income, and median house value.³¹ Logit estimation results are reported below in Appendix Table 4.2, with the first column being for the full sample of localities (N=55,269); the second column is based on municipalities located in CBSAs (N=36,950). The metropolitan sample in column 2 constitutes 67 percent of all localities and 94.5% of the population.

The regression results in Column 1 indicate that more-populated localities, those with a higher share of people under 18, and places with a higher share of college graduates are more likely to be in our final sample. Conversely, places with higher rates of home-ownership, a larger share of older residents, and a greater share of non-Hispanic whites are statistically significantly less likely to be in the sample. Interestingly, a locality’s median household income and median house value are not predictive of response. Most of these likelihoods also hold

³⁰ We drop all Census County Divisions, as they are statistical units and have no legal or governmental function.

³¹ Locality-level characteristics are via the 2012-2016 *ACS*, where available. When not available, we use the 2010 census. If we cannot merge ACS/Census variables on the locality, we impute the locality’s county-level average for any of the missing variables.

qualitatively for the CBSA sample (column 2), with the exceptions of the share of older residents (no longer statistically significant) and median house value (which is significantly negatively correlated with inclusion in the metro sample).

The probability of selection is computed for each responding locality using the coefficients from the logit estimation. The sample weight then is computed as the inverse probability of selection. In total, we create the three sets of weights discussed above: full sample weights, CBSA sample weights, and individual CBSA sample weights. The full sample weights are relevant for making inferences about the universe of the nation's cities and towns. CBSA sample weights are relevant for inferences about localities that are in metropolitan areas (i.e., CBSAs). The individual CBSA sample weights come from logit regressions run separately for each CBSA in the US for which there were at least ten responding communities.³²

Weighting does not affect the distribution of overall (or CBSA-based) index values much at all. This is documented in Appendix Table 4.3, which is the analogue to Table 2 in the main text. The index values for different points along the distribution of index values never vary by as much as one-tenth of a standard deviation, and often by much less. This is not so surprising given the large number of underlying observations. One randomly drawn sample in excess of 2,000 observations is likely to look similar to another.

Another way to look at how much weighting matters is to compute the average change in index ranking for the typical community responding to the survey. We created unweighted and weighted percentile ranks for each community. Differencing showed that no place moved more than three percentiles (e.g., from the 11th to 14th percentile in terms of overall regulatory strictness), with the median observation moving only by a single percentile.

³² Those results are too voluminous to show individually.

Appendix Table 4.2

Logit Estimation Results: Probability of Selection for the
National and Metropolitan Area Samples

	(1)	(2)
	National Sample	Metropolitan Sample
Population (in thousands)	0.00183*** (5.44)	0.00135*** (4.51)
Share owner-occupied	-1.969*** (-16.67)	-2.092*** (-14.96)
Share ages 65+	-1.970*** (-5.20)	-0.271 (-0.65)
Share ages <18	1.521*** (3.91)	2.317*** (5.03)
Share non-Hispanic white	-0.330*** (-3.50)	-0.192 (-1.86)
Median Household Income (in thousands, 2010 dollars)	0.00149 (1.26)	0.00187 (1.33)
Median House Value (in 100,000s, 2010 dollars)	0.00236 (0.15)	-0.0667*** (-3.65)
Share College Degree+	3.073*** (21.50)	3.295*** (19.51)
Constant	-2.133*** (-14.07)	-2.307*** (-13.40)
N	55269	36950

Weighting also does not affect our conclusions about index values for groups of lightly, average, and highly rated communities either. The table below, Appendix Table 4.4, which is

the analogue to Table 3 in the main body of the paper, shows how little subindex values change when we use weights. For example, without weights, the average LPPI subindex value for communities in the interquartile range of WRLURI2018 was 8.61; this is very close to the 8.43 when weights are used (middle column of the top row of Appendix Table 4.4). This further implies that our description of what it means to be lightly or highly regulated in the main body of the paper is not materially altered by whether weights are used.

Appendix Table 4.3: WRLURI2018 WEIGHTED Summary Statistics for Communities Inside and Outside CBSAs (analogue to Table 2 in the main body of the text)

	Full Sample (weighted)	Metro (weighted)
Mean	-0.089	-0.027
Standard Deviation	1.008	0.987
10th percentile	-1.330	-1.250
25th percentile	-0.772	-0.690
50th percentile	-0.177	-0.094
75th percentile	0.531	0.581
90th percentile	1.213	1.253
<i>Local Traits</i>		
Median Family Income (2010)	56,983	60,338
Median House Value (2010)	178,268	196,372
Percent College Graduates (2010)	0.25	0.27
Percent Poverty (2010)	0.13	0.12
Percentage White (2010)	0.82	0.81
Population (2010)	15,447	18,481
Land Area in Square Miles (2010)	21	21
Population Density Per Square Mile (2010)	1,424	1,576
Nobs	2,472	2,232

Weighting should matter more at the market level, where the number of observations in any given CBSA is smaller. However, Appendix Table 4.5, which is the analogue to Table 5 in the main text, shows that there is relatively little change in index values or ranks except in a few cases. The top five CBSAs are nearly same (with Los Angeles dropping out and Riverside, CA

moving from 6th to 5th when we weight), and the index values are quite similar, too. The only notable changes across the weighted and unweighted rankings are for metropolitan areas for which observations are sparse. The Phoenix metro, for example, has only 11 observations in our data. It drops from ninth in the equally weighted rankings reported in the text to 17th in the weighted rankings below, and its value declines from 0.64 to 0.26. Youngstown, Ohio—which has exactly 10 observations—moves the opposite direction, from 15th in the unweighted version to 6th in the weighted. Its index rises to 0.74 from 0.32. As expected, the greater the number of observations, the less sensitive the CBSA's ranking is to survey weights. The simple correlation between number of observations within a CBSA and its (absolute value) ranking change is -0.27. By construction, the mean difference in rankings is zero; the mean absolute value ranking change is three.

Appendix Table 4.4 : Variation Across the WRLURI2018 Distribution
(analogue to Table 3 in the text) (metro weighted sample) (CBSA Sample; n = 2,232)

	Lightly-Regulated:Bottom Quartile of Distribution, WRLURI <-0.690 (n=508)	Average- Regulated:Interquartile Range of Distribution,- 0.690<WRLURI< 0.581 (n=1128)	Highly-Regulated:Top Quartile of Distribution, WRLURI >0.581(n=596)
<i>Subindex</i>			
Local Political Pressure Index(LPPI)	6.54	8.43	9.55
State Political Involvement Index(SPII)	1.39	2.15	3.01
Court Involvement Index(CII)	2.25	3.08	4.45
Local Project Approval Index(LPAI)	1.71	2.29	3.51
Local Zoning Approval Index(LZAI)	2.25	2.83	3.93
Local Assembly Index(LAI)	0.35	0.45	0.62
Supply Restrictions Index(SRI)	0.05	0.11	0.37
Density Restriction Index(DRI)	2.00	2.20	2.48
Open Space Index(OSI)	0.30	0.61	0.74
Exactions Index(EI)	0.18	0.53	0.72
Affordable House Index(AHI)	0.02	0.10	0.31
Approval Delay Index(ADI--months)	3.63	4.81	7.68
<i>Local Traits</i>			
Median Family Income (2010)	53,452	60,332	67,198
Median House Value (2010)	150,317	193,179	248,563
Percent College Graduates (2010)	0.24	0.27	0.30
Percent Poverty (2010)	0.14	0.12	0.11
Percentage White (2010)	0.84	0.80	0.78
Population (2010)	14,512	16,563	26,243
Land Area in Square Miles (2010)	23	19	23
Population Density Per Square Mile (2010)	1,365	1,589	1,763
Nobs	508	1,128	596

**Appendix Table 4.5: WRLURI2018 Values for CBSAs with Ten or More Observations (With CBSA Sample Weights)
(analogue to Table 5 in the main text)**

CBSA Name	WRLURI	# Obs	CBSA Name	WRLURI	# Obs
1. San Francisco-Oakland-Hayward, CA	1.34	18	23. San Antonio-New Braunfels, TX	0.14	10
2. Providence-Warwick, RI-MA	1.02	14	24. Columbus, OH	0.14	17
3. New York-Newark-Jersey City, NY-NJ-PA	1.01	57	25. Scranton--Wilkes-Barre--Hazleton, PA	0.10	10
4. Seattle-Tacoma-Bellevue, WA	0.84	22	26. Nashville-Davidson--Murfreesboro--Franklin, TN	0.06	12
5. Riverside-San Bernardino-Ontario, CA	0.79	18	27. Dallas-Fort Worth-Arlington, TX	0.04	49
6. Youngstown-Warren-Boardman, OH-PA	0.74	10	28. Milwaukee-Waukesha-West Allis, WI	0.04	22
7. Los Angeles-Long Beach-Anaheim, CA	0.67	48	29. Portland-South Portland, ME	-0.05	16
8. Washington-Arlington-Alexandria, DC-VA-MD-WV	0.66	16	30. Kansas City, MO-KS	-0.08	17
9. Madison, WI	0.53	13	31. Minneapolis-St. Paul-Bloomington, MN-WI	-0.11	48
10. Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.48	49	32. Houston-The Woodlands-Sugar Land, TX	-0.13	16
11. Miami-Fort Lauderdale-West Palm Beach, FL	0.40	35	33. Chicago-Naperville-Elgin, IL-IN-WI	-0.15	94
12. Syracuse, NY	0.39	11	34. Pittsburgh, PA	-0.16	56
13. Denver-Aurora-Lakewood, CO	0.38	16	35. Worcester, MA-CT	-0.26	16
14. Portland-Vancouver-Hillsboro, OR-WA	0.35	18	36. Atlanta-Sandy Springs-Roswell, GA	-0.28	27
15. Boston-Cambridge-Newton, MA-NH	0.35	44	37. Grand Rapids-Wyoming, MI	-0.37	24
16. Albany-Schenectady-Troy, NY	0.32	10	38. Charlotte-Concord-Gastonia, NC-SC	-0.38	12
17. Phoenix-Mesa-Scottsdale, AZ	0.26	11	39. Rochester, NY	-0.40	26
18. Indianapolis-Carmel-Anderson, IN	0.23	14	40. Detroit-Warren-Dearborn, MI	-0.44	60
19. Allentown-Bethlehem-Easton, PA-NJ	0.21	14	41. St. Louis, MO-IL	-0.48	37
20. Buffalo-Cheektowaga-Niagara Falls, NY	0.21	12	42. Cincinnati, OH-KY-IN	-0.49	26
21. Hartford-West Hartford-East Hartford, CT	0.17	14	43. Lancaster, PA	-0.57	14
22. Cleveland-Elyria, OH	0.16	19	44. Harrisburg-Carlisle, PA	-0.57	15

Note: There are 1,107 communities within these 44 CBSAs.

Appendix 5: WRLURI2006 Results, Major Metropolitan Areas (Table 11 from Gyourko, Saiz and Summers (2008))

Table 11: Average WRLURI Values by Metropolitan Areas with Ten or More Observations					
Metropolitan Area	WRLURI	Number of Observations	Metropolitan Area	WRLURI	Number of Observations
1. Providence-Fall River-Warwick, RI-MA	1.79	16	25. Milwaukee-Waukesha, WI	0.25	21
2. Boston, MA-NH	1.54	41	26. Akron, OH	0.15	11
3. Monmouth-Ocean, NJ	1.21	15	27. Detroit, MI	0.12	46
4. Philadelphia, PA	1.03	55	28. Allentown-Bethlehem-Easton, PA	0.10	14
5. Seattle-Bellevue-Everett, WA	1.01	21	29. Chicago, IL	0.06	95
6. San Francisco, CA	0.90	13	30. Pittsburgh, PA	0.06	44
7. Denver, CO	0.85	13	31. Atlanta, GA	0.04	26
8.. Nassau-Suffolk, NY	0.80	14	32. Scranton-Wilkes-Barre-Hazleton, PA	0.03	11
9. Bergen-Passaic, NJ	0.71	21	33. Salt Lake City-Ogden, UT	-0.10	19
10. Fort Lauderdale, FL	0.70	16	34. Grand Rapids-Muskegon-Holland, MI	-0.15	16
11. Phoenix-Mesa, AZ	0.70	18	35. Cleveland-Lorain-Elyria, OH	-0.16	31
12. New York, NY	0.63	19	36. Rochester, NY	-0.17	12
13. Riverside-San Bernardino, CA	0.61	20	37. Tampa-St. Petersburg-Clearwater, FL	-0.17	12
14. Newark, NJ	0.60	25	38. Houston, TX	-0.19	13
15. Springfield, MA	0.58	13	39. San Antonio, TX	-0.24	12
16. Harrisburg-Lebanon-Carlise, PA	0.55	15	40. Fort Worth-Arlington, TX	-0.27	15
17. Oakland, CA	0.52	12	41. Dallas, TX	-0.35	31
18. Los Angeles-Long Beach, CA	0.51	32	42. Oklahoma City, OK	-0.41	12
19. Hartford, CT	0.50	28	43. Dayton-Springfield, OH	-0.50	17
20. San Diego, CA	0.48	11	44. Cincinnati, OH-KY-IN	-0.56	27
21. Orange County, CA	0.39	14	45. St. Louis, MO-IL	-0.72	27
22. Minneapolis-St. Paul, MN-WI	0.34	48	46. Indianapolis, IN	-0.76	12
23. Washington, DC-MD-VA-WV	0.33	12	47. Kansas City, MO-KS	-0.80	29
24. Portland-Vancouver, OR-WA	0.29	20			

Notes: Metropolitan area definitions are based on 1999 boundaries. Consolidated Metropolitan Statistical Areas (CMSAs) are disaggregated into Primary Metropolitan Statistical Areas wherever relevant.