

Report: Land Use Planning and Management Education Survey¹

Key points

- According to this survey, there is a core set of educators conducting most land use planning and education training across the state of Colorado: the Rocky Mountain Land Use Center, and the American Planning Association (national office and Colorado Chapter).
- Certain geographic areas appear to be underserved and, in the case of this survey, under-represented. This refers primarily to the nine-county Southeastern region.
- The majority of those who have received land use planning and management education are affiliated with a government entity: 87% of those affiliated with federal, state or local government had received some training in the previous 12 months, compared with just 60% of those in the private sector.
- There are two ways to prioritize subject areas where additional educational delivery is needed: 1) those subjects that need to be repeated at respondents' requests (perhaps because laws change or the subject is too complex), and 2) those subjects that have not been covered in a particular geographic area or taught to a specific set of respondents.
- To attend an educational forum on land use planning and management, 2/3 would pay at least \$50 for a workshop, and nearly 50% would pay at least \$75. The preferred length of educational delivery was a half-day to one full day. Evening sessions were the least popular choice (less than 8% of all respondents).

Introduction

From May 20 to August 4, 2008, Colorado State University-Department of Agricultural and Resource Economics, the Colorado Department of Local Affairs-Office of Smart Growth, and the American Planning Association-Colorado Chapter surveyed individuals across the state on their recent training in land use planning and management, their perceived need for additional training and how they transmit and receive information from citizens. The goal of the survey was to identify the best means of delivering information to land use decision-makers across Colorado, while differentiating critical community issues to be addressed, and categorizing education delivery mechanisms by region and/or by type of participant. Individuals selected to participate in this survey subscribed to DOLA and APA-Colorado email lists on land use planning issues. The survey asked participants to list and rate their educational experiences about land use planning in the previous 12 months, and asked them to identify areas where they felt they have adequate knowledge, as well as areas where they feel they could use more knowledge. They were also asked about their preferred format and method for receiving that knowledge and information, and how much they would pay for training. To better understand how information flows between those involved in land use decision-making and their constituents, participants were asked to identify the ways in which they encouraged citizen participation in land use decisions, and how citizens communicate with county or town/city staff on land use issues.

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This survey was distributed by email, beginning on May 26 and closing on August 4, 2008. The survey was administered by StudentVoice which has a contract to provide assessment services to Colorado State University. Potential respondents, those on DOLA and APA-Colorado Chapter email lists, were sent two to three emails requesting their participation in the survey. An explanatory letter provided the email link respondents could follow if they consented to participate. The survey was administered anonymously and the sole identifying information linking respondents to their responses was their email addresses, which were not transmitted with the survey data. All survey responses were kept confidential and results are presented only in aggregate form.

Overview of responses

In total, 192 individuals responded to this survey from across the state of Colorado. The majority of respondents were from the central and north central regions along the Front Range (45%), representing the most densely populated area of the state,² while the Southeastern region had the fewest respondents (only two). Four percent worked statewide, and 25% percent of the respondents chose not to identify the county or area in which they worked. Figure 1 shows the Department of Local Affairs Technical Assistance regions, and Table 1 illustrates the distribution of survey responses by DOLA region.

² Counties within DOLA regions are as follows: Central (Arapahoe, Clear Creek, Denver, Douglas, El Paso, Elbert, Jefferson, Teller); Northeastern (Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma); North Central (Adams, Boulder, Broomfield, Gilpin, Larimer, Weld); Northern Mountains (Eagle, Grand, Jackson, Park, Pitkin, Routt, Summit); Northwestern (Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Rio Blanco); Southwestern (Archuleta, Dolores, La Plata, Montezuma, Montrose, Ouray, San Juan, San Miguel); South Central (Alamosa, Chaffee, Conejos, Costilla, Custer, Fremont, Lake, Mineral, Rio Grande, Saguache); Southeastern (Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, Prowers, Pueblo).

Figure 1. Department of Local Affairs Technical Assistance regions

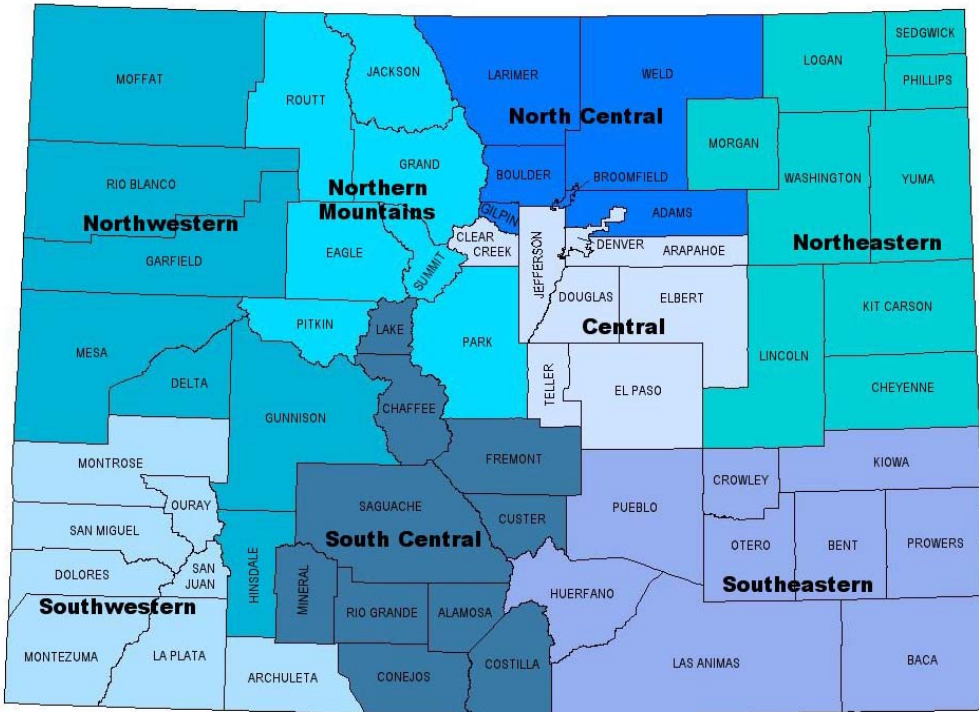


Table 1. Survey responses by DOLA region

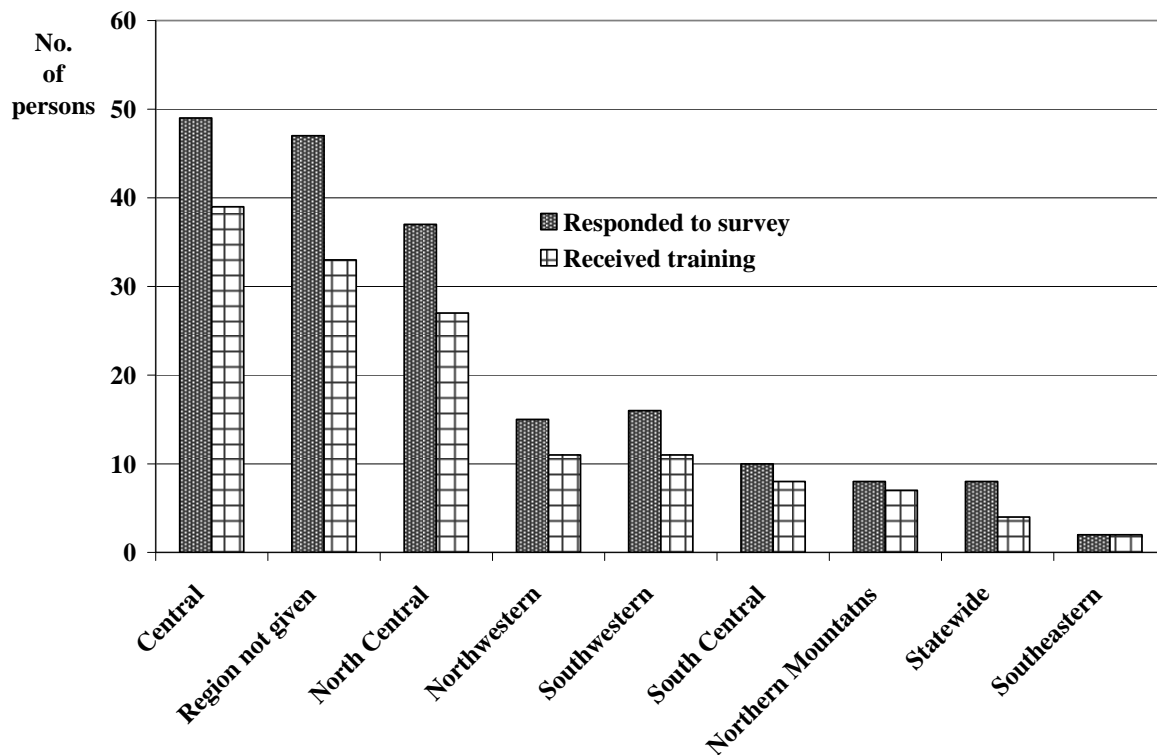
Region	Number of respondents	Percent of total
Central	49	25.5
North Central	37	19.3
Southwestern	16	8.3
Northwestern	15	7.8
South Central	10	5.2
Northern Mountains	8	4.2
Southeastern	2	1.0
Statewide	8	4.2
Region not given	47	24.5
Total	192	100.0

Overall, completed surveys were received from individuals working in 30 of Colorado’s 64 counties. 137 respondents worked in specific regions and 8 respondents worked statewide—for a total of 145 surveys where the respondent indicated a work location. An additional 47 respondents did not provide a geographic location for their work. At the county level, 27% of all respondents worked in 3 Colorado counties: Denver, Boulder and Jefferson, and Denver had the most respondents.

On a regional basis, the 8-county Central region had the greatest number of respondents (49 or 25.5%), followed by the 6-county North Central region (37 or 19.3%). The fewest surveys were received from the Northern Mountains (8 or 4%) and the Southeastern region (2 responses or 1%).

Of all respondents, 142 (74%) had attended a land use planning workshop or training in the 12 preceding months (see Figure 2 below). Most respondents from the Northwestern region had participated in a training (87%), compared to 69% of respondents in the Southwestern region. Although the proportion of those trained seems relatively high in general, there may be some selection bias, as respondents who subscribe to the two listservs from which respondents were contacted may be more interested in and receptive to training than land use decision-makers in general.

Figure 2: Training participants, by Department of Local Affairs region



Of those who attended any training in the last 12 months, 48% were affiliated with a federal, state or local government entity; 32% were volunteer planning commission members, attorneys, consultants, students and other private individuals, and 20% listed no professional affiliation. Of those affiliated with a government entity 87% had received some training in the previous 12 months, compared with just 60% of those who were in the private sector. Of those in government, the largest proportion trained were town/city and county officials, compared to 67% of state government employees and 50% of federal employees surveyed. Among private sector respondents, 71% of all volunteer planning commission members had received recent training.

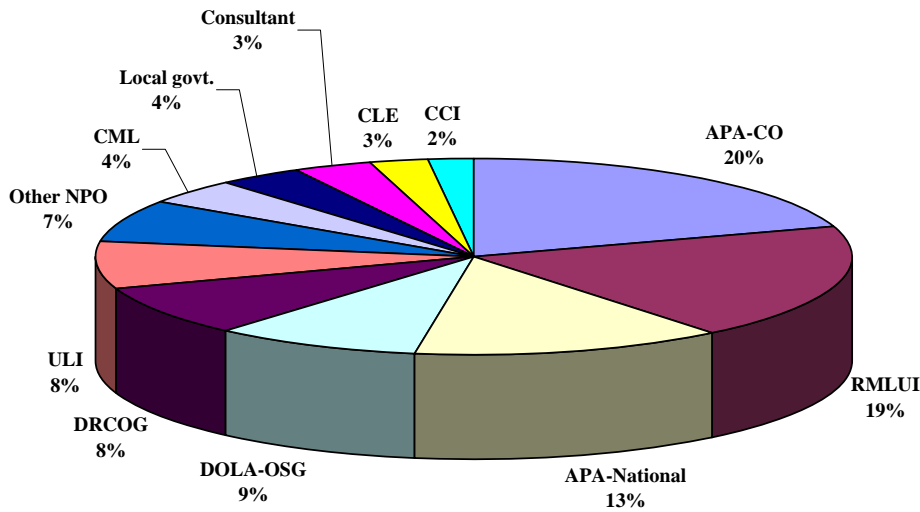
Table 2. Survey respondents by professional affiliation

Professional affiliation	Total number of survey responses	Percent of total respondents	Number who received any training	<u>Of each category,</u> percent of respondents who attended training
Government	91	48%	79	87%
Town/city govt employee	54	28%	50	93%
County govt employee	28	15%	25	89%
Other government	4	2%	1	25%
State govt employee	3	2%	2	67%
Federal agency planning	2	1%	1	50%
Private	62	32%	37	60%
Consultant (land use planning)	28	15%	19	68%
Volunteer planning commission member	17	9%	12	71%
Other planning	5	3%	1	20%
Citizen	4	2%	2	50%
Student	3	2%	1	33%
Non-profit	2	1%	2	100%
Developer	2	1%	0	0%
Private attorney	1	1%	0	0%
Affiliation not given	39	20%	26	67%
Total	192	100%	142	74.%

Land use educators in Colorado

Nearly 50% of all land use education was conducted by either the American Planning Association or the Rocky Mountain Land Use Institute (RMLUI, housed at the Sturm College of Law at the University of Denver). APA-Colorado provided 20% of all land use education, RMLUI, 19%; and APA-National provided 13%. Respondents reported that DOLA’s Office of Smart Growth provided 9% of their training. Figure 3 below shows the majority of land use educators in Colorado (94%), as reported by the survey respondents. The remaining 6% of training was conducted by a university, federal agency, the Sonoran Institute, National Association of Counties, Colorado Coalition of Land Trusts, or Club 20 (a Western Slope advocacy group). Respondents reported attending no educational events presented by Colorado State University, Colorado Rural Development Council, and the Public Lands Partnership (a Western Slope non-profit organization fostering collaboration and partnerships with public land management).

Figure 3: Land use educators by organization



Land use education

The most frequently cited training subjects are detailed in Table 3 below. The most prevalent were zoning and comprehensive or master plan development, followed by redevelopment and regional planning. The least cited topics were: legal issues in land use planning, special districts, community indicators and use of secondary data, real estate development, understanding 1034 powers, and cooperative agreements.

Among those top ten subjects, the area in which participants felt they gained the most knowledge was in planning commission function/development (rated 4.13 out of 5.00, and followed by main street development and open space protection tools), while they felt they gained the least knowledge in regional planning (rated at 2.85 out of 5.00). Across all subjects, however, respondents ranked land use law issues and demographic analysis as the areas where they had gained the most knowledge through recent training (rated at 4.50 and 4.40, respectively; see Table 4).

Looking back to a similar study conducted by Andrew Seidl at Colorado State University in 1999, we can make some broad comparisons about knowledge and interest in additional training (see <http://dare.colostate.edu/pubs/lupr003-03.pdf>). Although the earlier survey methodology differs from this current study, several trends seem to persist, including the ongoing need for training in zoning, planned unit development, capital improvement planning, environmental impact statements, civic participation and dialogue approaches and multi-jurisdictional planning approaches. Furthermore, there was strong interest in open space protection tools in the previous survey (overall participants, ranked their need and interest in these tools higher than their knowledge and skills), and there is still a need for this education expressed in the current survey, where 48% of respondents would like more training in this area.

Table 3. Top ten training subjects and knowledge obtained by participants

Subject	Number of training participants	Ave knowledge score	Percent who want additional training
Zoning	55	3.89	40%
Comprehensive or master plan development	53	3.84	47%
Redevelopment/infill	42	3.90	52%
Regional planning	37	2.85	51%
Subdivision regulations	30	3.79	43%
Open space protection tools (easements, purchase or transfer of development rights)	29	4.03	48%
Planned Unit Development (PUD)	26	3.79	31%
Main street development or revitalization	25	4.04	40%
Planning commission function/development	23	4.13	35%
Multi-jurisdictional or regional planning approaches	23	3.90	52%

Where 1=Participant strongly disagrees that s/he is more knowledgeable following the training, and 5=Participant strongly agrees that s/he is more knowledgeable.

Even in those subjects where participants felt they had learned a lot (for example, where the knowledge ratings are greater than or equal to 4.00), one-third to one-half desired additional training (with the exception of running effective meetings). Some of the subjects were suggested as “other” and thus all respondents did not have the opportunity to indicate whether they would like additional training (signified as NA, information not available in Table 4 below). Those subjects with the lowest demand for additional training were capital improvement planning (17%) and building codes (13%).

Table 4. Knowledge gained through training and additional knowledge desired
(where the average =3.00)

Subject	Rating of knowledge gained	Number of participants	Percent who want additional training
Legal issues (land use law)	4.50	4	30%
Demographic analysis	4.40	10	50%
Stormwater drainage	4.33	6	NA
Transit-oriented development	4.33	12	NA

Subject	Rating of knowledge gained	Number of participants	Percent who want additional training
Sustainability issues	4.30	10	NA
Legal/defensible decision-making for commissions & boards	4.25	20	30%
Special districts	4.25	4	NA
Tax credits	4.20	5	50%
Planning codes	4.18	11	NA
Economic analysis (impact or cost of community service studies)	4.14	14	53%
Planning commission function/development	4.13	23	35%
Green building design	4.12	8	NA
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	4.10	10	60%
Main street development or revitalization	4.04	24	40%
Open space protection tools (easements, purchase or transfer of development rights)	4.03	29	48%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	4.00	2	50%
Cooperative agreements (e.g., tax-base sharing)	4.00	2	50%
Running effective meetings	4.00	14	21%
Real estate development	4.00	3	NA
Civic participation and dialogue approaches	3.95	19	53%
Annexation	3.94	17	41%
Redevelopment/infill	3.90	42	52%
Multi-jurisdictional or regional planning approaches	3.90	21	52%
Zoning	3.89	54	40%
Building Codes	3.88	8	13%
Value and management of ecosystem services	3.88	8	25%
Comprehensive or master plan development	3.84	51	47%
Capital improvement programming	3.80	5	17%
Urban growth boundaries	3.80	15	40%
Subdivision regulations	3.79	29	43%
Planned Unit Development	3.79	24	31%
Environmental impact assessment	3.78	9	44%

Subject	Rating of knowledge gained	Number of participants	Percent who want additional training
Impact fees	3.67	15	33%
Financing open space acquisition	3.67	6	33%
Intergovernmental agreements	3.44	16	41%
Community indicators and use of secondary data	3.33	3	67%
Regional planning	2.85	34	51%

Note: NA=no data available as these topics were reported as “other” by certain respondents and were not on the list available to all respondents for evaluating if they needed additional training in this specific area.

The areas in which participants felt they had gained the least knowledge included: regional planning (2.85 out of 5.00—meaning that on average they felt they were not more knowledgeable than before the training; community indicators and use of secondary data (3.33); and intergovernmental agreements (3.44)). In these areas, 51% of those who had acquired training in regional planning wanted more training; as did 67% of those who trained in community indicators; and 41% of those who had received training in intergovernmental agreements.

Additional training needs throughout Colorado

Participants across the state are interested in receiving additional training across a wide array of land use planning and management subjects. Although, some had already received training in the prior 12 months, regardless of their rating of that previous training, many desired additional education in the same subjects.

In terms of priority areas for additional training, two themes emerge. The first is among the relatively high proportion of people who want to re-train in certain areas. For example, 2 out of the 3 people (67%) who did community indicator training would like to repeat it, and 60% of those who trained in natural hazards planning and mitigation would like to repeat that training. For both economic analysis and civic participation in planning, 53% would like to retrain or acquire additional knowledge. Table 5 shows the percent interested in more training for each subject area. Overall there were 11 areas in which 50% or more of the respondents wanted to retrain or seek more training in those subjects. This finding highlights the need to view training as an on-going process for two reasons: 1) on more complex issues, it may take several exposures for training participants to capture enough information to feel knowledgeable; and 2) policies, rules and regulations change (as well as the public response to them), and land use education needs to support this continually evolving context for knowledge.

Table 5. Respondents' training needs

Subject	Number who already received training in this subject	Number desiring training in this subject	Percent desiring <u>repeat</u> training
Regional planning	37	74	51%
Comprehensive or master plan development	53	71	47%
Economic analysis (impact or cost of community service studies)	15	69	53%
Impact fees	15	67	33%
Redevelopment/infill	42	67	52%
Multi-jurisdictional or regional planning approaches	23	62	52%
Intergovernmental agreements	17	59	41%
Main street development or revitalization	25	57	40%
Civic participation and dialogue approaches	19	55	53%
Demographic analysis	10	55	50%
Environmental impact assessment	9	55	44%
Cooperative agreements (e.g., tax-base sharing)	2	54	50%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	2	53	50%
Open space protection tools (easements, purchase or transfer of development rights)	29	53	48%
Financing open space acquisition	6	52	33%
Community indicators and use of secondary data	3	51	67%
Zoning	55	49	40%
Capital improvement programming	6	44	17%
Legal/defensible decision-making for commissions & boards	20	42	30%
Planned Unit Development	26	42	31%
Annexation	17	41	41%
Subdivision regulations	30	41	43%
Running effective meetings	14	40	21%
Urban growth boundaries	15	39	40%
Tax credits	6	38	50%
Value and management of ecosystem services	8	36	25%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	10	32	60%
Planning commission function/development	23	32	35%

Table 6 examines training deficits by geography by looking at the number of respondents who had already received training in any subject, compared to the number of respondents who wanted training in any subject (where respondents could list multiple subjects for training). Overall, the greatest training deficit is observed in the North Central region of the state where 77% of training needs identified by respondents are unmet, equivalent to training deficit among individuals who work in many areas across the state (also 77%). Training needs appear to be most adequately met in the Northern Mountains region where 27% desire additional education across land management and education subjects. For training needs in each DOLA region by subject area, see the tables in Appendix.

Table 6. Training needs by DOLA region

	Training desired	Training received	Percent unmet training needs
North Central	388	88	77%
Statewide	44	10	77%
Southwestern	163	46	72%
Northwestern	167	48	71%
Southeastern	33	12	64%
South Central	91	49	46%
Central	412	223	46%
Northern Mountains	48	35	27%
Total reporting geography	1,346	511	62%
All respondents	1,378	657	52%

Table 7 shows training gaps by professional affiliation, where respondents are classified as either affiliated with a government agency (local, state or federal) or in the private sector. For government agency personnel, the most cited training needs are analytical (community indicators, EIAs, ecosystem services), as well as regulatory/legal (1034 powers, tax credits, and open space financing) and management-related (meeting administration, civic participation, urban growth boundaries). For those involved in land use planning and management from the private sector, respondents primarily identified analytical approaches that would help them better understand their community (demographic analysis, community indicators, civic participation, economic analysis). The top five training needs by subject are highlighted in Table 7 below, and show two areas of high need across private and public sector respondents: 1) analysis of community indicators and use of secondary data, and 2) capital improvement programming (CIP). These two subject areas are both long-term and linked: participants in the CIP process must understand community needs, growth patterns and goals, and be able to apply them to CIP planning and financing. Any CIP training should, therefore, involve both public and private

sector participants and be conducted in stages to better inform all participants in this complex subject matter.

The overall training deficit, across all subjects, was quite similar for both public (63%) and private sector participants (62%). Among the subjects with the smallest training deficit identified through this survey, public sector respondents listed planning commission function/development, redevelopment/infill, comprehensive or master plan development, and subdivision regulations. The smallest identified training deficits among private sector respondents included subdivision regulations, comprehensive or master plan development, running effective meetings, planning commission function/development, and zoning.

According to survey respondents, those trained in transportation (for both public and private sector respondents), zoning (for public sector), and tax credits (for the private sector) exceeded the demand identified through this survey, although there were still individuals who wanted training in these subjects.

Table 7. Training needs by professional affiliation

	Government		Private		Government	Private
	Training needs	Training received	Training needs	Training received	Unmet training needs	
Community indicators and use of secondary data	30	1	19	2	97%	89%
Understanding 1034 powers	32	2	21	5	94%	76%
Financing open space acquisition	33	3	17	3	91%	82%
Environmental impact assessment	38	4	14	5	89%	64%
Capital improvement programming	26	3	18	2	88%	89%
Civic participation and dialogue approaches	33	10	21	6	88%	89%
Value and management of ecosystem services	23	4	12	4	83%	67%
Economic analysis	47	9	20	3	81%	85%
Tax credits	25	5	12	37	80%	*
Demographic analysis	40	9	14	1	78%	93%
Impact fees	40	9	26	5	78%	81%
Running effective meetings	29	7	10	6	76%	40%
Intergovernmental agreements	39	10	20	5	74%	75%
Natural hazards planning & mitigation	19	7	13	3	63%	77%
Multi-jurisdictional or regional planning approaches	32	12	29	8	63%	72%
Urban growth boundaries	27	10	11	5	63%	55%
Annexation	25	10	15	5	60%	67%
Legal/defensible decision-	27	12	15	7	56%	53%

	Government		Private		Government	Private
	Training needs	Training received	Training needs	Training received	Unmet training needs	
making for commissions & boards						
Building codes	13	6	5	2	54%	60%
Main street development or revitalization	31	16	25	7	48%	72%
Open space protection tools	33	18	17	8	45%	53%
Planned Unit Development	27	15	15	7	44%	53%
Regional planning	37	22	34	10	41%	71%
Planning commission function/development	21	14	11	7	33%	36%
Redevelopment/infill	43	31	23	9	28%	61%
Comprehensive or master plan development	40	31	29	16	23%	45%
Subdivision regulations	25	21	15	7	16%	53%
Zoning	29	36	18	13	*	28%
Transportation	1	8	1	4	*	*
Cooperative agreements	35	0	17	0	As cited by respondents, no training offered to date in these areas	
General management practices	2	0	0	0		
GIS	2	0	0	0		
Historic preservation	2	0	1	0		
Moratoria	15	0	4	0		
Open space planning	2	0	0	0		
Sustainability	2	0	3	0		
	925	345	525	202		63%

* Training received in these subjects exceeds training needs identified by survey respondents.

Regionally, training needs differ and Table 8 attempts to capture some of these differences, by summarizing the top five training needs for each region. For example, the areas where the majority of regions desired training were in understanding 1034 powers and in financing open space protection. Respondents in the Northwestern region, which is seeing significant oil and gas exploration and development expressed the greatest need in assessment tools, in terms of impact on the population, the economy and the resource base. Both the North Central and the Central regions were interested more in planning and management tools for growth.

Table 8. Top five training needs by region

	North Central	South-eastern	Central	South Central	Northern Mtns	North-western	South-western
1034 powers	✓	✓	✓				✓
Capital improvement programming							✓
Civic participation				✓			
Community indicators					✓		
Cooperative agreements			✓	✓			
Demographic analysis				✓			✓
Economic analysis						✓	
EIA	✓				✓	✓	
Financing open space	✓	✓			✓		✓
General management skills			✓				
GIS	✓						
Historic preservation			✓				
Impact fees		✓					
Intergovernmental agreements					✓		
Legal/defensible decision-making					✓		
Main street development or revitalization						✓	
Moratoria (on development)	✓		✓	✓			
Multi-jurisdictional planning		✓				✓	
Natural hazards planning and mitigation						✓	
Redevelopment/infill		✓					✓
Value and management of ecosystem services				✓			

Community issues

Respondents were asked to rate citizens' concerns on a wide variety of issues affecting Colorado communities. Across the 25 issues evaluated, mean responses ranged from 4.10 to 2.84, on a five-point Likert scale (where 1 is not at all important and 5 is extremely important-see Table 9 below). Overall, respondents cited different issues of importance to citizens in their own communities, but open space preservation and private property rights were ranked the highest at 4.10). Other issues considered very important were public finance, growth management and transportation planning. At a regional level, the following issues were listed as most important to area citizens (see complete tables in Appendix):

- North Central – transportation planning and open space preservation;
- Central – private property rights and transportation planning;
- South Central – private property rights and preservation of the rural lifestyle;

- Northern Mountains – growth management and affordable housing;
- Northwestern - preservation of the rural lifestyle and impacts of natural oil or gas exploration/extraction; and
- Southwestern – rural/urban sprawl and public finance.

Ranked below 3.00 (meaning issues of moderate importance) were forest land conversion, access to progress reports of community goals, and brownfield/infill redevelopment (note that brownfields were ranked relatively higher in importance in the North Central and Central regions but very low in all others).

When these data are compared to a similar study conducted by Andrew Seidl in 1999, the issues of greatest community importance appear to have changed over time. For example, where open space preservation was ranked first in importance in 2008, it was ranked at 11 in 1999, while water quantity was of greatest concern in 1999, followed by water quality. Agricultural profitability was ranked 3rd in 1999 (not evaluated in 2008) and preservation of the "rural lifestyle" was ranked 4th in 1999 (which fell to 13 in 2008, when respondents compared it to other issues such as growth management, private property rights and other planning issues). Interestingly, rural/urban sprawl was ranked 7th by both 1999 and 2008 respondents.

Table 9. Issues of importance to Colorado citizens

Issues' importance to citizens	Mean	Std. Dev.	Rank 2008	Rank 1999*
Open space preservation	4.10	0.81	1	11
Private property rights	4.10	0.80	2	
Public finance (e.g., roads, schools)	4.04	0.98	3	6
Growth management	4.01	1.02	4	
Transportation planning	4.01	0.98	5	
Water quantity	3.97	1.06	6	1
Rural/urban sprawl	3.94	1.03	7	7
Water quality	3.94	0.99	8	2
Affordable housing (e.g., for workforce, seniors)	3.82	1.01	9	15
Energy efficiency	3.76	1.05	10	
Air quality	3.70	1.03	11	8
Involvement in decision-making process	3.67	1.05	12	
Preservation of the "rural lifestyle"	3.64	1.28	13	4
Multi-jurisdictional planning	3.52	1.11	14	13
Agricultural land conversion	3.47	1.28	15	5
Management of public outdoor recreation	3.45	1.00	16	12
Wildfire management & mitigation	3.44	1.15	17	
Rural subdivision planning	3.36	1.32	18	

Issues' importance to citizens	Mean	Std. Dev.	Rank 2008	Rank 1999*
Wildlife habitat conversion	3.35	1.20	19	9
Land speculation	3.19	1.15	20	10
Large lot, low density development	3.09	1.10	21	16
Impacts of natural oil or gas exploration and/or	3.06	1.38	22	
Forest land conversion	2.91	1.27	23	14
Access to progress reports of community goals	2.87	1.11	24	
Brownfield/infill redevelopment	2.84	1.17	25	

Scale = 1 through 5, where 5=extremely important

* Rank given by topic, where available, from Seidl (2000). Note that the third highest ranking issue in 1999 was agricultural profitability which was not evaluated by 2008 respondents. Also, mean rankings from the two studies are not comparable as the Likert scales differed in range.

Most communication to decision-makers on the community issues listed above comes primarily through a combination of direct and indirect communication (see Table 10 below). For example, citizens call or send letters/emails to their planning departments (with a mean of 3.13 signifying occasionally) or write letters to local newspapers (2.95 or a little less than occasionally). At a regional level there is some variation observed in the apparent frequency of such communication. Mean responses for the top ranked method of communication—direct contact with the planning department—range from 2.80 in the South Central region to 4.50 in the Southeast.

According to survey respondents, the least used method of communication was formal protests. Furthermore, it appears that citizen participation is relatively low in terms of service on boards or commissions, when evaluated on a statewide basis. Note that the most consistent methods of citizen input (attending planning commission hearings, involvement with NGOs or other special interest groups, and serving on boards and commissions are all ranked lower than the intermittent communication forms. This implies that community members could communicate more frequently to make their needs known and to make sure that their public representatives are acting on their behalf.

Table 10. How decision-makers learn about issues of importance to citizens

Communication method used by citizens	Mean value
Call or send letters or emails to the planning development	3.13
Write letters to the editors of local newspapers	2.95
Attend public hearings	2.91
Attend planning commission meetings	2.66
Contribute to or participate in NGOs or other special interest groups	2.55
Serve on boards or commissions	2.53
Participate in formal protests	2.18

Scale ranges from 1=Never to 5= Always.

Land use management decision-makers may use various methods to encourage citizen participation in planning and implementing land use policies. Table 11 details respondents' appraisal of how citizen input is encouraged. The most common methods involve making information available to the public and relying on their ability to obtain and interpret it. For example, providing a public comment period was ranked highest for encouraging participation, followed by making information available and posting notices. Surveying the public on important issues was cited as being used occasionally, while providing report cards, workshops, notices and other information syntheses were rarely used.

Table 11. How decision-makers encourage citizen participation

Method of participation	Mean
Provide a "public comment" period at every public meeting of the local planning commission or governing body	4.63
Make local plans, zoning ordinances, and other planning documents available to the public	4.37
Post notices about important meetings and proposals	4.35
Produce summaries of important documents to increase public exposure to these materials	3.58
Provide basic support to citizen advisory committees (such as clerical help or a meeting place)	3.44
Produce flyers or booklets that describe processes and procedures such as hearings and appeals	3.26
Survey the public on important issues	3.14
Provide "report cards" of performance in reaching community goals	2.31
Provide training workshops for citizens	2.31

Method of participation	Mean
Prepare notices and other information in a language other than English when a land use proposal is likely to affect members of the community for whom English is not their principal language	2.29
Develop and maintain a newsletter on land use issues	2.14

Scale = 1 through 5, where 5=always.

Developing educational programs

In terms of receiving new information on land use planning and management that they could use to meet community needs, most respondents indicated they were most likely to use fact sheets, followed by workshops and professional meetings (refer to Table 12). Government employees were more likely to want to attend workshops and field days compared to non-government employees who preferred fact sheets. Overall, Web casts and video conferences were ranked lowest as methods of receiving educational programming by all respondents. Government employees were more likely to use any means of information (ratings ranged from 2.98 to 3.95), compared to non-government (2.71 to 3.60 range). The conclusion one can draw is that users prefer receiving information in a concise format (fact sheets) or in shorter educational sessions where networking and information exchange can occur in person.

Table 12. Respondents' preferences for using specific sources of educational information

Information source	n=159	Mean
Fact sheets		3.82
Workshops and field days		3.77
Professional meetings		3.63
Professional publications		3.52
Regular email updates (listserv)		3.45
Handouts of PowerPoint slides		3.37
Formal coursework for continuing education credit		3.29
DVD for use in your office		3.22
Webcast		3.12
Video conference		2.85

Scale = 1 through 5, where 5=extremely likely.

Overall, nearly all participants were willing to travel a half-hour to attend a training opportunity, and 83% would travel one hour (see Table 13). With a 1.5 hour travel time, approximately half of all respondents would agree to travel. Surprisingly, nearly 35% of all respondents were willing

to travel 2 hours one way to attend an educational event. Five respondents preferred to get their information from the Web and not travel at all. As Table 14 illustrates, however, willingness to travel does vary by region.

Table 13. Willingness to travel, one-way, to educational opportunities

Travel distance, one-way, for training	Number of respondents	Percent of all respondents	Cumulative number who will travel this distance
Half hour	28	14.1%	97.5%
One hour	59	29.6%	83.4%
1.5 hours	38	19.1%	53.8%
2 hours	38	19.1%	34.7%
More than 2 hours	31	15.6%	15.6%

Table 14 below shows the percentage of individuals who will travel increasing distances to attend an educational forum. Only in the Central and Southwestern regions are there respondents who declined to travel at least one-half an hour (3% and 5% respectively). At a travel distance of one hour, the majority of respondents would still attend, with all those in the Southeast attending, and the fewest from the Central region (77%). With a proposed two-hour travel time to an educational event, most of the Front Range respondents indicated they would not attend, with only 23% of those from the North Central region and 20% of those from the Central region agreeing to attend. Respondents in the Southeast and Southwestern regions (100% and 59%) were most willing to drive two hours. However, offering credit for education in land use planning and management encouraged only a subset of planners. Fifty percent of all respondents who were certified professional planners with the American Institute of Certified Planners (AICP) indicated that they would not drive farther for an educational event, even if continuing maintenance education credits were offered.

Table14. Cumulative one-way travel distances by region, to attend an educational forum

Travel distance	North central	Southeast	Central	South Central	Northern Mountains	North-western	South-western
Half hour	100%	100%	97%	100%	100%	100%	95%
One hour	88%	100%	77%	93%	92%	91%	82%
1.5 hours	49%	100%	41%	79%	75%	73%	64%
2 hours	23%	100%	20%	64%	58%	55%	59%
More than 2 hours	12%	50%	3%	36%	25%	27%	32%
None of the above	-	-	3%	-	-	-	5%

Table 15 below shows the length of training event in which respondents would participate. Most respondents chose half-day or full-day (35.6% and 37.8%), followed by a course lasting longer than one day. Less than 8% indicated they would attend an evenings-only session, while several respondents said that the length of educational event would depend on their perceptions of the session’s value and their personal gain from it. One responded that s/he would participate only in a Web-based session.

Table 15. Respondents’ willingness to attend educational events by length of session

	Number of respondents	Percent of all respondents
Full-day	88	37.8%
Half-day	83	35.6%
More than 1 day	32	13.7%
Evenings only	18	7.7%
Indicated another length	9	3.9%
None of the above	3	1.3%
	233	100.0%

Note n=192, but respondents could choose all the lengths of time that were amenable to their participation.

At a regional level, respondents from the three Front Range areas were much less willing to choose an evening class or one extending over more than one day. Those in the South Central, Northern Mountains, Northwestern and Southwestern regions were much more willing to participate in a session extending over more than one day (from 25% to 35%). Those in the Central and Southwestern regions were most inclined to attend shorter educational events held in the evening.

Table 16. Length of educational training event

	North central	Southeast	Central	South Central	Northern Mountains	North-western	South-western
Half-day	45%	0%	37%	25%	31%	30%	15%
Full-day	41%	67%	42%	38%	31%	30%	41%
More than 1 day	6%	0%	5%	31%	25%	35%	26%
Evenings only	6%	0%	12%	0%	6%	0%	11%
Other length	2%	33%	1%	6%	6%	5%	4%
None of the above	0%	0%	1%	0%	0%	0%	4%

When asked what they would pay for a full-day of training, including reference materials and refreshments, a quarter of respondents were willing to pay \$100, followed by 22% who would pay \$75, and 21% who would pay \$50. However, only 15% would pay \$125, and 7.5% would not pay anything for a one-day training. Interestingly, 43% of all respondents who were certified professional planners with AICP would not pay any more for an educational event if continuing maintenance education credits were offered.

Table 17. Payment for full-day training

	Number of respondents	Percent of responses
\$100	40	25.2
\$75	35	22.0
\$50	33	20.8
\$125	24	15.1
\$25	15	9.4
\$0	12	7.5
Total	159	100.0

Appendices:

1. Tables A-1 through A-8: Training needs by DOLA region
2. Tables A-9 through A-14: Issues of importance to citizens, by DOLA region

A-1. Training needs - North Central (n=37)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Understanding 1034 powers	13	0	100%
Financing open space acquisition	11	0	100%
Environmental impact assessment	11	0	100%
Moratoria (on development)	7	0	100%
GIS	2	0	100%
Sustainability	1	0	100%
Transportation	1	0	100%
Economic analysis (impact or cost of community service studies)	19	1	95%
Cooperative agreements (e.g., tax-base sharing)	17	1	94%
Community indicators and use of secondary data	17	1	94%
Capital improvement programming	14	1	93%
Demographic analysis	12	1	92%
Value and management of ecosystem services	10	1	90%
Impact fees	18	2	89%
Multi-jurisdictional or regional planning approaches	18	2	89%
Tax credits	9	1	89%
Civic participation and dialogue approaches	16	2	88%
Running effective meetings	15	2	87%
Legal/defensible decision-making for commissions & boards	12	2	83%
Planning commission function/development	10	2	80%
Main street development or revitalization	16	4	75%
Annexation	11	3	73%
Intergovernmental agreements	18	5	72%
Urban growth boundaries	7	2	71%
Open space protection tools (easements, purchase or transfer of development rights)	11	4	64%
Comprehensive or master plan development	20	8	60%
Regional planning	20	8	60%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	7	3	57%
Redevelopment/infill	19	10	47%
Building Codes	3	2	33%
Zoning	13	9	31%
Subdivision regulations	5	6	0%
Planned Unit Development	5	5	0%
	388	88	77%

A-2. Training needs - Southeastern (n=2)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Redevelopment/infill	2	0	100%
Impact fees	2	0	100%
Multi-jurisdictional or regional planning approaches	2	0	100%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	2	0	100%
Financing open space acquisition	2	0	100%
Planned Unit Development	2	0	100%
Economic analysis (impact or cost of community service studies)	1	0	100%
Capital improvement programming	1	0	100%
Demographic analysis	1	0	100%
Open space protection tools (easements, purchase or transfer of development rights)	1	0	100%
Environmental impact assessment	1	0	100%
Value and management of ecosystem services	1	0	100%
Tax credits	1	0	100%
Urban growth boundaries	1	0	100%
Moratoria (on development)	1	0	100%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	2	1	50%
Subdivision regulations	2	1	50%
Comprehensive or master plan development	1	1	0%
Intergovernmental agreements	1	1	0%
Civic participation and dialogue approaches	1	1	0%
Running effective meetings	1	2	0%
Zoning	1	1	0%
Legal/defensible decision-making for commissions & boards	1	2	0%
Annexation	1	1	0%
Planning commission function/development	1	1	0%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
	33	12	64%

A-3. Training needs - Central (n=49)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Cooperative agreements (e.g., tax-base sharing)	22	0	100%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	15	0	100%
Moratoria (on development)	4	0	100%
Historic preservation	1	0	100%
General management skills	1	0	100%
Open space planning	1	0	100%
Running effective meetings	14	1	93%
Demographic analysis	16	2	88%
Economic analysis (impact or cost of community service studies)	20	3	85%
Community indicators and use of secondary data	13	2	85%
Tax credits	13	2	85%
Capital improvement programming	11	2	82%
Financing open space acquisition	11	3	73%
Environmental impact assessment	16	5	69%
Intergovernmental agreements	14	5	64%
Legal/defensible decision-making for commissions & boards	14	5	64%
Subdivision regulations	11	4	64%
Annexation	8	3	63%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	8	3	63%
Multi-jurisdictional or regional planning approaches	17	8	53%
Value and management of ecosystem services	8	4	50%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Regional planning	24	13	46%
Civic participation and dialogue approaches	19	11	42%
Main street development or revitalization	20	12	40%
Building Codes	5	3	40%
Urban growth boundaries	9	6	33%
Planned Unit Development	9	6	33%
Planning commission function/development	6	4	33%
Comprehensive or master plan development	18	15	17%
Redevelopment/infill	22	19	14%
Impact fees	19	42	0%
Zoning	13	18	0%
Open space protection tools (easements, purchase or transfer of development rights)	8	9	0%
Sustainability	1	3	0%
Transportation	1	10	0%
	412	223	46%

A-4. Training needs - South Central (n=10)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Civic participation and dialogue approaches	3	0	100%
Cooperative agreements (e.g., tax-base sharing)	2	0	100%
Demographic analysis	2	0	100%
Value and management of ecosystem services	2	0	100%
Moratoria (on development)	2	0	100%
Redevelopment/infill	1	0	100%
Community indicators and use of	1	0	100%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
secondary data			
Tax credits	1	0	100%
Capital improvement programming	1	0	100%
Impact fees	6	1	83%
Environmental impact assessment	5	1	80%
Financing open space acquisition	5	1	80%
Open space protection tools (easements, purchase or transfer of development rights)	5	1	80%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	4	1	75%
Urban growth boundaries	4	1	75%
Economic analysis (impact or cost of community service studies)	3	1	67%
Multi-jurisdictional or regional planning approaches	4	2	50%
Planned Unit Development	5	3	40%
Regional planning	3	2	33%
Intergovernmental agreements	3	2	33%
Legal/defensible decision-making for commissions & boards	3	2	33%
Comprehensive or master plan development	7	6	14%
Zoning	6	7	0%
Subdivision regulations	5	7	0%
Running effective meetings	3	3	0%
Planning commission function/development	3	6	0%
Annexation	1	1	0%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	1	1	0%
Total	91	49	46%

A-5. Training needs - Northern Mountains (n=8)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Community indicators and use of secondary data	3	0	100%
Environmental impact assessment	2	0	100%
Financing open space acquisition	2	0	100%
Intergovernmental agreements	2	0	100%
Legal/defensible decision-making for commissions & boards	2	0	100%
Planning commission function/development	2	0	100%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	1	0	100%
Civic participation and dialogue approaches	1	0	100%
Cooperative agreements (e.g., tax-base sharing)	1	0	100%
Capital improvement programming	1	0	100%
Historic preservation	1	0	100%
Demographic analysis	4	2	50%
Planned Unit Development	2	1	50%
Regional planning	2	1	50%
Annexation	2	1	50%
Economic analysis (impact or cost of community service studies)	4	3	25%
Comprehensive or master plan development	3	5	0%
Subdivision regulations	3	3	0%
Zoning	2	3	0%
Open space protection tools (easements, purchase or transfer of development rights)	2	2	0%
Impact fees	1	4	0%
Multi-jurisdictional or regional planning approaches	1	2	0%
Running effective meetings	1	2	0%
Redevelopment/infill	1	3	0%
Building Codes	1	1	0%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Sustainability	1	2	0%
Total	48	35	27%

A-6. Training needs - Northwestern region (n=15)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Economic analysis (impact or cost of community service studies)	8	0	100%
Environmental impact assessment	7	0	100%
Multi-jurisdictional or regional planning approaches	7	0	100%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	7	0	100%
Main street development or revitalization	7	0	100%
Community indicators and use of secondary data	6	0	100%
Intergovernmental agreements	6	0	100%
Financing open space acquisition	5	0	100%
Civic participation and dialogue approaches	4	0	100%
Building Codes	4	0	100%
Moratoria (on development)	3	0	100%
Cooperative agreements (e.g., tax-base sharing)	2	0	100%
Value and management of ecosystem services	2	0	100%
General management skills	1	0	100%
Open space protection tools (easements, purchase or transfer of development rights)	9	1	89%
Impact fees	7	1	86%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	5	1	80%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Planned Unit Development	10	3	70%
Urban growth boundaries	6	2	67%
Capital improvement programming	3	1	67%
Tax credits	3	1	67%
Demographic analysis	8	3	63%
Regional planning	6	3	50%
Annexation	7	4	43%
Legal/defensible decision-making for commissions & boards	5	3	40%
Planning commission function/development	5	3	40%
Comprehensive or master plan development	6	4	33%
Running effective meetings	3	2	33%
Redevelopment/infill	7	5	29%
Subdivision regulations	5	4	20%
Zoning	3	7	0%
Total	167	48	71%

A-7. Training needs - Southwestern region (n=16)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Financing open space acquisition	8	0	100%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	8	0	100%
Capital improvement programming	7	0	100%
Demographic analysis	6	0	100%
Redevelopment/infill	6	0	100%
Cooperative agreements (e.g., tax-base sharing)	6	0	100%
Community indicators and use of secondary data	5	0	100%
Building Codes	2	0	100%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Moratoria (on development)	2	0	100%
Intergovernmental agreements	8	1	88%
Impact fees	7	1	86%
Main street development or revitalization	7	1	86%
Subdivision regulations	6	1	83%
Tax credits	4	1	75%
Planned Unit Development	7	2	71%
Zoning	7	2	71%
Economic analysis (impact or cost of community service studies)	6	2	67%
Annexation	6	2	67%
Environmental impact assessment	3	1	67%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	3	1	67%
Civic participation and dialogue approaches	3	1	67%
Regional planning	7	3	57%
Urban growth boundaries	4	2	50%
Planning commission function/development	4	2	50%
Value and management of ecosystem services	4	2	50%
Multi-jurisdictional or regional planning approaches	7	4	43%
Comprehensive or master plan development	7	4	43%
Open space protection tools (easements, purchase or transfer of development rights)	6	5	17%
Legal/defensible decision-making for commissions & boards	3	3	0%
Running effective meetings	2	2	0%
Sustainability	2	3	0%
Total	163	46	72%

A-8. Training needs - Statewide responsibilities (n=8)

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Intergovernmental agreements	3	0	100%
Tax credits	3	0	100%
Value and management of ecosystem services	3	0	100%
Civic participation and dialogue approaches	3	0	100%
Understanding 1034 powers (Local Government Land Use Control Enabling Act)	2	0	100%
Impact fees	2	0	100%
Regional planning	2	0	100%
Legal/defensible decision-making for commissions & boards	2	0	100%
Multi-jurisdictional or regional planning approaches	1	0	100%
Comprehensive or master plan development	1	0	100%
Demographic analysis	1	0	100%
Subdivision regulations	1	0	100%
Community indicators and use of secondary data	1	0	100%
Urban growth boundaries	1	0	100%
Natural hazards planning and mitigation (rockslides, shifting soils, etc.)	1	0	100%
Historic preservation	1	0	100%
Open space planning	1	0	100%
Capital improvement programming	3	1	67%
Main street development or revitalization	2	1	50%
Economic analysis (impact or cost of community service studies)	2	1	50%
Open space protection tools (easements, purchase or transfer of development rights)	3	2	33%
Financing open space acquisition	2	2	0%
Environmental impact assessment	2	2	0%

Subject	Number desiring more training	Number who already received training in this area	Percent of unmet training needs
Redevelopment/infill	1	1	0%
Total	44	10	77%

A-9. Issues of importance to citizens - North Central (n=37)

	Mean	Std. Deviation
Transportation planning	4.19	0.94
Open space preservation	4.16	0.87
Water quality	4.11	0.74
Public finance (eg, roads, schools)	4.08	0.89
Water quantity	4.00	1.11
Private property rights	3.97	0.93
Growth management	3.92	1.06
Energy efficiency	3.92	0.98
Air quality	3.84	0.99
Involvement in decision-making process	3.81	1.08
Multi-jurisdictional planning	3.72	1.14
Rural/urban sprawl	3.70	1.18
Affordable housing (eg, for workforce, seniors)	3.65	0.92
Preservation of the "rural lifestyle"	3.53	1.19
Agricultural land conversion	3.46	1.27
Management of public outdoor recreation	3.43	1.09
Wildlife habitat conversion	3.38	1.23
Wildfire management & mitigation	3.20	1.26
Large lot, low density development	3.17	1.01
Land speculation	3.08	1.19
Rural subdivision planning	3.06	1.43
Brownfield/infill redevelopment	2.89	1.19
Impacts of natural oil or gas exploration and/or extraction	2.88	1.24
Access to progress reports of community goals	2.81	1.37
Forest land conversion	2.57	1.20

A-10. Issues of importance to citizens - Central Region (n=49)

	Mean	Std. Deviation
Private property rights	4.14	0.74
Transportation planning	4.12	0.88
Public finance (eg, roads, schools)	4.06	1.03
Open space preservation	4.02	0.72
Growth management	3.83	1.02
Water quantity	3.71	1.08
Rural/urban sprawl	3.71	1.01
Involvement in decision-making process	3.67	1.07
Water quality	3.57	1.10
Energy efficiency	3.51	1.21
Air quality	3.41	1.06
Affordable housing (eg, for workforce, seniors)	3.39	1.10
Multi-jurisdictional planning	3.33	1.10
Management of public outdoor recreation	3.25	0.98
Wildlife habitat conversion	3.13	0.99
Brownfield/infill redevelopment	2.98	1.22
Large lot, low density development	2.87	1.12
Preservation of the "rural lifestyle"	2.81	1.37
Access to progress reports of community goals	2.79	1.05
Wildfire management & mitigation	2.78	1.25
Land speculation	2.61	1.06
Rural subdivision planning	2.60	1.29
Agricultural land conversion	2.42	1.14
Forest land conversion	2.38	1.18
Impacts of natural oil or gas exploration and/or extraction	2.09	0.95

A-11. Issues of importance to citizens - South Central Region (n=10)

	Mean	Std. Deviation
Private property rights	4.70	0.48
Preservation of the "rural lifestyle"	4.70	0.48
Rural subdivision planning	4.60	0.70
Rural/urban sprawl	4.50	0.85
Water quantity	4.50	0.71
Agricultural land conversion	4.40	0.84
Open space preservation	4.40	0.84
Growth management	4.20	0.63
Wildlife habitat conversion	4.20	1.14
Water quality	4.20	0.92
Public finance (eg, roads, schools)	4.10	0.99
Affordable housing (eg, for workforce, seniors)	4.10	0.74
Wildfire management & mitigation	4.10	0.57
Multi-jurisdictional planning	3.90	0.88
Energy efficiency	3.90	0.88
Management of public outdoor recreation	3.89	0.93
Large lot, low density development	3.80	0.92
Land speculation	3.70	1.16
Air quality	3.70	1.16
Involvement in decision-making process	3.70	1.16
Forest land conversion	3.60	1.07
Impacts of natural oil or gas exploration and/or extraction	3.50	1.41
Transportation planning	3.50	1.18
Access to progress reports of community goals	2.90	1.10
Brownfield/infill redevelopment	2.75	1.04

A-12. Issues of importance to citizens - Northern Mountains (n=8)

	Mean	Std. Deviation
Growth management	4.75	0.46
Affordable housing (eg, for workforce, seniors)	4.63	0.74
Energy efficiency	4.50	0.53
Water quality	4.38	0.74
Forest land conversion	4.25	0.71
Transportation planning	4.25	1.04
Agricultural land conversion	4.14	1.21
Wildlife habitat conversion	4.13	0.64
Air quality	4.13	0.64
Water quantity	4.13	0.83
Wildfire management & mitigation	4.13	0.64
Rural/urban sprawl	4.00	1.07
Open space preservation	4.00	0.93
Preservation of the "rural lifestyle"	4.00	1.07
Involvement in decision-making process	4.00	1.07
Rural subdivision planning	3.63	1.06
Land speculation	3.50	1.20
Management of public outdoor recreation	3.50	0.93
Private property rights	3.50	0.93
Impacts of natural oil or gas exploration and/or extraction	3.50	0.84
Multi-jurisdictional planning	3.38	1.06
Public finance (eg, roads, schools)	3.25	0.89
Access to progress reports of community goals	3.25	1.04
Brownfield/infill redevelopment	2.71	0.76
Large lot, low density development	2.63	1.41

A-13. Issues of importance to citizens - Northwestern region (n=15)

	Mean	Std. Deviation
Preservation of the "rural lifestyle"	4.40	0.91
Impacts of natural oil or gas exploration and/or extraction	4.40	1.06
Affordable housing (eg, for workforce, seniors)	4.29	0.99
Private property rights	4.27	0.70
Rural/urban sprawl	4.20	0.86
Rural subdivision planning	4.13	0.83
Agricultural land conversion	4.13	0.74
Water quantity	4.00	1.36
Growth management	3.93	0.96
Public finance (eg, roads, schools)	3.87	1.06
Land speculation	3.87	0.99
Open space preservation	3.73	0.88
Water quality	3.73	1.10
Air quality	3.64	1.01
Transportation planning	3.53	1.25
Wildfire management & mitigation	3.53	1.06
Large lot, low density development	3.47	1.06
Management of public outdoor recreation	3.33	1.18
Multi-jurisdictional planning	3.27	1.10
Involvement in decision-making process	3.27	1.28
Wildlife habitat conversion	3.27	1.22
Energy efficiency	3.20	1.32
Forest land conversion	3.08	1.19
Access to progress reports of community goals	2.57	0.85
Brownfield/infill redevelopment	2.33	1.18

A-14. Issues of importance to citizens - Southwestern Region (n=16)

	Mean	Std. Deviation
Rural/urban sprawl	4.38	0.72
Public finance (eg, roads, schools)	4.31	0.87
Affordable housing (eg, for workforce, seniors)	4.19	0.75
Growth management	4.19	0.98
Preservation of the "rural lifestyle"	4.19	0.75
Open space preservation	4.13	0.72
Private property rights	3.94	0.68
Rural subdivision planning	3.94	0.93
Transportation planning	3.88	0.89
Agricultural land conversion	3.81	0.91
Water quantity	3.75	0.86
Water quality	3.75	0.93
Wildlife habitat conversion	3.69	0.87
Impacts of natural oil or gas exploration and/or extraction	3.63	1.31
Multi-jurisdictional planning	3.63	1.02
Energy efficiency	3.56	0.81
Land speculation	3.56	0.81
Air quality	3.50	1.03
Management of public outdoor recreation	3.44	0.51
Wildfire management & mitigation	3.38	1.02
Involvement in decision-making process	3.31	0.79
Large lot, low density development	3.13	0.81
Forest land conversion	2.93	0.88
Access to progress reports of community goals	2.88	0.96
Brownfield/infill redevelopment	2.50	1.03