#### FINAL REPORT TO THE FORD FAMILY FOUNDATION

Project Title:	Rural Community Explorer portal project
Organizations:	Rural Studies Program, Oregon State University The Valley Library, Oregon State University
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#### **Proposal Abstract:**

The Rural Studies Program (RSP) at Oregon State University (OSU) and the OSU Libraries collaborated to create a Rural Communities Explorer portal (phase 1). (www.oregonexplorer.info/rural).

This project builds on the investments made by the Ford Family Foundation in 2006-07 in the development of "community indicators" (indicators of community vitality) and by the OSU Libraries and the Institute for Natural Resources in developing the Oregon Explorer portal (www.oregonexplorer.info). In this project, faculty of the OSU Rural Studies Program worked with the library to load the portal with pertinent information on rural communities in Oregon.

The Rural Communities Explorer allows community residents and officials, agencies and businesses, universities and philanthropic organizations to access county and community specific information. The specific information developed with this grant for the Explorer included: (1) relevant social, economic, environmental and demographic profiles of each community; and (2) related community-specific spatial/map data, relevant reports and documents, news articles, maps, and photos from the library archives and other sources. The Explorer is designed to permit ease of use by the public with free access to mapping and reporting tools.

#### Community need met by project:

When the project was proposed and initiated, rural community leaders did not have a comprehensive, easy-to-use source of information about their community and how it is doing in achieving its goals, nor did they have a way of comparing their community's progress with that of comparable communities. Similarly, agencies, businesses, universities and philanthropies who wish to support rural communities lack an easy way to access information needed to make decisions about issues and priorities, and – after investments – to determine if it made a difference. At the time, information had to be collected from many sources and then sorted for relevancy. The Rural Communities

Explorer provides a permanent, secure web-location for existing information, for more specific information collected for each community, and for information generated within the community. The site provides a means for university faculty and students to partner with communities in making the information needed by that community available and valuable. The site permits analysis of trends in a community and permits comparisons across communities and in comparison to statewide statistics.

The project was not able to address the social, economic, and environmental indicators of community vitality, incorporated into a community prosperity model *for each community* because of limited time and available resources. However, we were able to develop a general community model and general indicators of community vitality.

#### Community users who will benefit from this project:

The three targeted user groups of the Rural Communities Explorer include:

- o Rural elected officials and governmental agents
- Rural program managers
- Engaged rural residents

The Ford Family Foundation will be able to use the Rural Community Explorer to track the vitality of the communities that have participated in the Ford Institute Leadership Program, and to better understand the impacts of other grant and scholarship investments in these communities.

The Rural Communities Explorer will also be of use to community residents and leaders, including those trained by the Ford Family Foundation and Rural Development Initiatives; school district officials, teachers, and students; nongovernmental, nonprofit agencies and others writing and administering grants; federal, state, and local government officials and their staff; media; realtors, visitor associations, and chamber of commerce groups; researchers and educators, including extension agents.

#### Outcomes and accomplishments of this project:

Completion of phase 1 of the Rural Communities Explorer portal (<u>www.oregonexplorer.info/rural</u>) is the primary product of this project. The site was developed as a component of the Oregon Explorer (<u>www.oregonexplorer.info</u>) and was launched at the Grantmakers conference in Sisters, Oregon on October 16, 2008.

The Oregon Explorer is a natural resources digital library that enables users to quickly find, retrieve, integrate, and synthesize geo-referenced information through a series of geographic, topic, and data web portals. The Oregon Explorer is managed cooperatively by OSU libraries and INR. The Rural Communities Explorer will continue to be maintained cooperatively by OSU Libraries and the OSU Rural Studies Institute.

In December 2008, a chapter written by Lena Etuk (OSU Rural Studies Program) and Laurie Bridges (OSU Libraries) about the Rural Communities Explorer was published in the book: <u>Academic Library Outreach: Beyond the Campus Walls</u> edited by Nancy Courtney and published by Libraries Unlimited.

#### **Project tasks for phase 1:**

- 1. Develop the Rural Communities Explorer (RCE) portal web design
- 2. Contribute content to ScholarsArchive@OSU
- 3. Develop a rural feature story
- 4. Develop stories for selected rural issues
- 5. Build a community reporting tool
- 6. Build and populate a statewide advanced mapping tool
- 7. Perform usability testing and evaluation
- 8. Perform Rural Communities Explorer evaluation, trainings and outreach
- 9. Identification of needs for future development phases for the RCE

#### <u>Descriptions of the Rural Communities Explorer portal development tasks & end</u> <u>products:</u>

#### Task 1: Develop the Rural Communities Explorer portal web design

This task involved creating the Rural Communities Explorer portal "look and feel" that is consistent with the Oregon Explorer series. The web design includes the development of a creative brief and site mock-up. The creative brief is used to document the target audience, key messages, functionality and content needs.

#### Task 1 End Product: Rural Communities Explorer home page (Attachment 1)

#### Task 2: Contribute content to ScholarsArchive@OSU

OSU and RSP staff contributed 50 metadata and online documents to the institutional repository at Oregon State University (ScholarsArchive@OSU). Items in the Rural Studies Program collection include:

- Oregon County Resource Atlas (early1970's) for each of the 36 Oregon counties
- Story about the information regarding the origin of selected Oregon city names
- White papers prepared by Rural Study Program staff (13)

All of these documents are accessible from the Rural Communities Explorer "Reports and Publications" section by linking to ScholarsArchive and selecting the **Rural Studies Program community** and collection.



*Example of Cover page from Baker County Resource Atlas (83 pp.)* 

In addition, by linking to ScholarsArchive@OSU and typing in "**rural oregon**" as a keyword, a user can access more than 780 digital documents that have been archived.

## Task 2 End Product: Fifty archived digital documents from the Rural Studies Program at OSU.

#### Task 3: Develop a rural feature story

Text for this 5 page multi-media story featured on the Rural Communities Explorer home page was prepared by Dr. Bruce Weber from a Rural Studies Program working paper. Entitled "Redefining Oregon: an exploration of rural and urban lands", this multi-media story describes three ways in which rural and urban areas have been defined by nationwide systems. Rural definitions are also presented in audio and graphic (map) formats. The story reveals how the choice of classification system has far-reaching research and policy implications.



Task 3 End Product: Redefining Oregon—multi-media story on the use of different rural and urban definitions.

#### Task 4: Develop stories for selected rural issues

A key component of the Oregon Explorer digital library and associated portals are the stories that help to provide a context for the topic or a place of interest. With these stories, we help the user to understand why they should care about accessing the data or digital content that has been archived. With the Rural Communities Explorer, 19 stories were created to help users of the portal learn about the rural issues facing the State.

📃 Learn about a Rural Issue
Defining Rural
Population Size and Distribution
Age
Family Structure
Education
Income
Employment and Labor Market
Migration
Race and Ethnicity
Health and Mortality
Crime and Abuse
Housing
Food System
Natural Resources & Amenities
Economic Resources
Environmental Health
Community Capacity
Classifications
Community Vitality

For each of the issues listed, the associated stories provide an explanation of what the rural issue is and how it is defined. There are also links to the Oregon Community Reporter which compiles available data for each issue.

### *Example of story for Population Size & Distribution rural issue:*



Task 4 End Product: Stories for all 19 Rural Issues featured in Rural Communities Explorer "Learn about a Rural Issue" section.

#### Task 5: Build a community reporting tool

OSU Libraries and RSP staff created an Oregon Communities Reporter tool to allow users to create profiles for more than 700 towns, villages, and cities and 36 counties in Oregon.



The tool is accessible from the 1) Rural Communities Explorer home page, 2) "Learn about" sections (Community and Rural Issue), and 3) "Maps, Charts, and Tables" section.

The Oregon Communities Reporter Tool draws from a database that was created by faculty and students affiliated with the Rural Studies Program. It contains raw numeric and calculated statistics for the state of Oregon, 36 counties, 309 Census Designated Places, 755 Census Tracts, 235 High Schools, and 1195 5<sup>th</sup> and 8<sup>th</sup> grade schools. The database contains entries for these geographies for the years 1990, 2000, and 2005. A database containing raw numeric statistics allows users to obtain aggregate statistics for a region that the server can calculate and report within seconds.

The database is a Geographic Information System, which allows users to select communities of interest from a map for which to generate a report. The example following on the next page is a report generated from the selection of two Oregon coastal communities: Pacific City and Newport. The report enables comparisons of these two communities or a combining of the data from these two communities. Community comparisons with county and/or statewide data can also be made using the Oregon Community Reporter tool.

Overview Select Communities View Re	port								
Learn About A Community									
STEP 1 Select a Community Places Newport  Places Counties OR use map to select community.	STEP C Combine C Compare	2 Repo	<b>rt Bin</b> Pacific City Census Desid Rewport Census Desid	gnated Place) gnated Place) Cle	x x ar All	STEP	3 Ger Genera	ierate Re te Report	port
Comparison Report	fo <b>r</b> Pacifi	c City (Ce	ensus De	sig Places	2000)				
and New Click on a cluster heading (i.e. Education) below to see data for selected Population Size and Distribution	port (Cen communities.	isus Desig	) Places 2	2000)					
⊞ Age									
+ Family Structure									
Education									
	F Hide	Pacific Cit	y	🗆 Hide	Newport			Oregon	
	(Pacific City	/ CDP, Orego	n)	(Newport cit	y, Oregon)	2005	4000	-	2025
Median Household Income	1990 N/A	\$33,250	2005 N/A	\$24,137	2000 \$31,996	2005 N/A	\$27,250	2000 \$40,916	2005 N/A
Per capita Personal Income, as a Percentage of US per capita Personal Income	75.00%	80.00%	83.00%	82.00%	82.00%	85.00%	92.00%	94.00%	94.00%
Percentage of Households with Wage & Salary Income	N/A	63.69%	N/A	72.96%	70.09%	N/A	75.60%	76.49%	N/A
Percentage of Households with Social Security Income	N/A	51.12%	N/A	31.75%	33.18%	N/A	27.69%	25.82%	N/A
Percentage of Households with Public Assistance Income	N/A	2.43%	N/A	7.95%	4.91%	N/A	6.06%	3.55%	N/A
Percentage of Households with Retirement Income	N/A	30.63%	N/A	17.54%	19.41%	N/A	16.80%	17.16%	N/A
Percentage of Individuals with Income Less than or Equal to 185% of the Poverty Level	N/A	23.08%	N/A	31.31%	36.70%	N/A	28.90%	26.90%	N/A
Child Poverty Rate	N/A	23.81%	N/A	18.05%	18.05%	N/A	15.75%	16.56%	N/A
Poverty Rate	N/A	7.90%	N/A	11.94%	14.39%	N/A	12.42%	11.61%	N/A
or less of Poverty Level)	N/A	4.00%	N/A	4.31%	5.40%	N/A	5.00%	5.03%	N/A
Income Distribution	<u>See chart</u>	<u>See chart</u>		<u>See chart</u>	<u>See chart</u>		<u>See chart</u>	<u>See chart</u>	l
Employment & Labor Market									
Migration									
Race & Ethnicity									
+ Health & Mortality									
Crime & Abuse									
+ Housing									
Food System									
Natural Resources & Amenities									
± Economic Resources									
Environmental Health									
Community Capacity									
Classifications									

## Task 5 End Product: Oregon Communities Reporter tool accessible from the Rural Communities Explorer portal.

#### Task 6: Build and populate a statewide advanced mapping tool

OSU Libraries and RSP staff compiled and added 5 statewide data layers and their associated metadata to the Oregon Explorer interactive advanced mapping tool for rural mapping applications. These layers include: 1) Percent of land in farms; 2) Census tract boundaries; 3) Metropolitan status; 4) Percent of population with income below 185% of federal poverty line; and 5) Seasonal home vacancy rate. These layers can be found in the "Land and People" folder within the "Land Use" sub-folder and "Population" sub-folder.

The Advanced Mapping Tool is available from the Rural Communities Explorer "Maps, Charts and Tables" section. Users have the ability to view and create maps at multiple scales, ranging from individual cities to statewide. The mapping tool provides printing, GIS data downloading, pdf creation, and saving of map state. For data extraction and downloading, the mapping tool enables user-defined area extraction of vector data (points, lines, polygons) for those data layers that are not copyright restricted.



Example of a GIS data layer (Metropolitan Status) accessible from the Rural Communities Explorer advanced mapping tool.



Example PDF map product for the data layer: Percent of land in farms (2002)

#### Task 6 End Product: Five data layers added to Oregon Explorer advanced mapping tool.

#### Task 7: Perform usability testing and evaluation

In the Fall of 2008, four users were tested representing the four targeted user groups: elected officials (Lane County Commissioner); rural program leaders (Rural Development Initiative Director of Leadership Services); engaged citizen/community leaders; and a public agency staff (Employment Department Sr. Analyst).

Users experience with computers ranged from 13 years to 30 years. All of the users used PCs. Two of the users used Mozella Firefox, and the other two used IE 6 for the testing. None of the users used GIS, and only one of them used GPS. Three of them used GoogleEarth.

Each of the users was able to explain the relationship between the Rural Communities Explorer and the Oregon Explorer.

Testing times ranged from 35 minutes to 75 minutes. Testings occurred in Newberg, Eugene, Salem and Corvallis. All testings were conducted by Janine Salwasser, OSU Libraries. Usability testing results and recommended actions are presented in Attachment 2.

In addition, a preliminary usability test was conducted in the Spring of 2008 with an upper division Rural Sociology class at The Valley Library. Students tested the site navigation and tool (reporting and mapping) functionality. Their experiences and comments were very helpful in the

development of a more useful site, especially for younger generation users. After the usability testing session, Dr. Lena Etuk provided a demonstration and training for the students on how to use the site from the perspective of a social demographer.

# Task 7 End Product: Five usability testing sessions (four one-on-one sessions and one classroom session) with evaluation.

### **Task 8: Perform Rural Communities Explorer evaluation, trainings and outreach** (including marketing of the site).

To help evaluate the usage of the Rural Communities Explorer site, OSU Libraries employs Urchin 5 software from Google Analytics. This software analyzes traffic for Web sites and provides accurate and easy-to-understand reports about usage. Since the site was launched on October 16, 2008, we have had more than 31,000site visits<sup>1</sup> in 2008. OSU Libraries will continue to use Urchin 5 Software to track use of the Rural Communities Explorer to inform future decisions about enhancements to and expansion of the site based on user feedback.

The following table lists the Rural Communities Explorer trainings and outreach conducted during the grant time period:

2008	Event	Audience	Location	
Outreach				
5-1-08	Rural Communities Explorer	Rural Sociology	Corvallis	
	(RCE) usability and training	class (SOC 475)		
	session			
7-11-08	Rural Community Explorer	The Ford Family	Corvallis	
	demonstration	Foundation		
9-18-08	University Day	OSU faculty &	Corvallis	
		students		
10-14-08	RCE press release	broad outreach	Oregon	
10-16-08	Grantmakers Conference	Philanthropic	Sisters	
		organizations		
11-10-08	2 <sup>nd</sup> RCE press release and OE	broad outreach	Oregon	
	Fact sheet released			
11-11-08	KDOV Interview	Television viewers	Medford	
11-14-08	Toward One Oregon	Elected officials,	Salem	
	Conference	academia,		
		interested citizens		
12-2-08	OSU Extension demonstration	FCD faculty	Corvallis	
	and training			
12-5-08	Oregon Rural Congress	Elected officials,	Coos Bay	
		interested citizens		

<sup>&</sup>lt;sup>1</sup> A visit is a sequence of requests, all made from the same IP address, ending when the browser is closed or shut down, or when there is a gap between requests of more than 30 minutes.

OSU Libraries subcontracted with The Ulum Group to assist with the marketing (outreach and promotion) of the Rural Communities Explorer site after it was launched.

Future outreach events are also planned for 2009, including:

- January, 2009 Demonstration & Training for Central Oregon OSU Extension county faculty and staff
- Spring, 2009 Demonstration & Training at OSU Extension Annual Spring Training inservice for Extension faculty

Task 8 End product: Site has had more than 31,000 visits since the launch in October 2008. Outreach events include: two press events; six demonstrations of the Rural Communities Explorer site; one radio interview, and two trainings (with 2 additional trainings planned for early 2009).

#### **Task 9: Identification of needs for future development phases of the Rural Communities Explorer**

The following are ideas already generated from user's feedback offered at outreach events, during the usability testing, and through email correspondence after the site was launched.

- Add all Oregon Communities Reporter tool variables to the mapping tool
- Create an online tutorial, perhaps a webinar or online short course
- Create community pages that serve as an archive of community visions, community assessments, indicators, and other information
- Create guides/tutorials on accessing, analyzing, and interpreting data
- Add more urban community (and neighborhood) data and information to develop the site into an OR Rural-Urban Communities Explorer
- Add new data (community generated data, newly available secondary data, and data for new geographic scales like Census Block Groups)
- Develop rural issue pages to contain original, rural Oregon research
- Add a monitoring page as a quick source for people to find out the latest developments regarding Oregon's rural economy, population, or environment

As a next step, we recommend the convening of 2 focus group meetings in Salem and Tillamook. The Salem session could bring together various state agency program leaders and the Tillamook session could bring together the local community leaders already involved with the Ford Family Leadership program (e.g., county commissioners, Oregon Food Bank, Tillamook County Futures Council, Tillamook County Commission on Children & Families). The objectives of the focus group meetings would be to 1) highlight Rural Community Explorer phase 1 existing information and tools and get feedback, and 2) generate additional ideas and needs for a phase 2 effort.

### Task 9 End product: will be a phase 2 Rural Communities Explorer proposal to The Ford Family Foundation and other philanthropic organizations.

#### Attachment 1. Rural Communities Explorer home page (as of 12/10/08)



About this Site | OSU Disclaimer | OSU Data Disclaimer | Contact Webmaster | Comments

#### Attachment 2. Rural Communities Explorer Usability Testing Results & Recommended Actions

#### 1. <u>Background on the users tested:</u>

In the Fall of 2008, four users were tested representing the four targeted user groups: elected official (Lane County Commissioner); rural program leader (Rural Development Initiative Director of Leadership Services); engaged citizen/community leader; public agency staff (Employment Department Sr. Analyst).

Users experience with computers ranged from 13 years to 30 years. All of the users used PCs. Two of the users used Mozella Firefox, and the other two used IE 6 for the testing. None of the users used GIS, and only one of them used GPS. Three of them used GoogleEarth.

Each of the users was able to explain the relationship between the Rural Communities Explorer and the Oregon Explorer.

Testing times ranged from 35 minutes to 75 minutes. Testings occurred in Newberg, Eugene, Salem and Corvallis. All testings were conducted by Janine Salwasser, OSU Libraries.

2. General comments:

"This kind of data [Oregon Communities Reporter] would be very useful as we look for areas with economic development funds or look to target areas for youth needs"

"I would encourage fellow commissioners to use the Rural Communities Explorer because of all the information available there"

"A lot of good data and if you have a lot of time on your hands you can use it, but it will take some effort"

"You can make cool maps in it"

"I will be telling all my friends about it"

- 3. Overall ratings for the Rural Communities Explorer site (1 low and 5 high):
  - 2 "what I want is for things to be easier to understand and faster to comprehend"
  - 4 "I thought it was really easy to use"
  - 2 or 3 "I wanted more direct links to the data and tools for the various issues and places"
  - 4 "A little confusing...a lot going on. This site will save me a lot of time. It would have to be like Google to get a rating of 5 – real simple"

- 4. <u>Specific RCE observations:</u>
  - All users tested found the Rural Communities Explorer from the left column list on the OE home page.
  - RCE item of greatest interest: learn about a community (1), feature story box (1), list of portals/pictures (1), Oregon Communities Reporter (1)
  - One user thought that the accompanying text for issues and other items was too general.
     → have page provide direct links to data and tools relating to the subject matter at top
  - One user didn't know what "place" referred to in the "learn about a community section"

 $\rightarrow$  replace with community/place

 $\rightarrow$  add an option to learn about a city

- One user wanted to get more on "learn about a rural issue" (e.g., community vitality page very general—desire for access to actual measures and results)
- One user did not know what "how does your community work" was all about
   → provide a lead in sentence and how to get more information (e.g., upcoming
   workshops)
- There was interest in adding a tool to get on an email list to get RCE announcements and updates
  - $\rightarrow$  enable user to select from list of update areas: tools, topics, etc.
  - $\rightarrow$  add a timeline for new things that will be coming online or in the works
- One user really wanted to see a "site map" so that she could see where they were and what was available.
  - $\rightarrow$  add an overall site map for OE and RCE

 $\rightarrow$  Change "about this site" to "about the Rural Communities Explorer" from here add the site map; link to Oregon Communities Reporter, and identify new stuff coming (they also thought that this should be moved to the first position in the context section)

- One user didn't know what each of the navigation buttons would do (need to make more obvious what you can expect to do)
  - $\rightarrow$  Precede "learn about" section with "Context for this site"
  - $\rightarrow$  Precede tools section with "Tools for this site"
- One user was most interested in county information and could not get to specific county pages from RCE site.
  - $\rightarrow$  Add a link to the county pages in the learn about place section
- Need to add "employment dept." to list of state organizations
- 5. <u>Specific Oregon Community Reporter Tool observations:</u>
  - One user didn't know that "launch community reporter" was linked
     → change color of heading (learn about a place) to black

- Once Oregon Community Reporter was launched, two users read directions in overview, two did not (and said they probably would not)
- One user put their selected place name in the map box, and then didn't know what to do

 $\rightarrow$  change "1" to "Step 1" and say "Start Here"

note: once this was fixed the other users tested were able to complete the 3 steps easily.

• One user thought that the report had no data shown (didn't know about opening up the variables)

 $\rightarrow$  in banner, add a one sentence instructional message about clicking on + to view data for each variable

- Three users were able to interpret data for each variable selected and compare 2+ communities over time (and both really liked this function!)
  - one user tried to compare Cresswell with Cottage Grove and could not get the data for Cottage Grove by typing it in the box (but could get it from the map) same for Oakridge. Also when multiple communities were selected and removed from the list, there seemed to be a glitch in the reporting, where the communities of interest did not show in the report, and instead some of the previously deleted communities/census tracts came up.
  - one user could not compare Newberg and Yamhill county from community selection, but could from county selection
  - two users thought it was silly to have a bar chart show up for one data point (education charts)
  - $\rightarrow$  Include the Oregon stats in the charts with one data point
  - note: Oregon stats did not show for the community capacity variables (Kings Valley and Cottage Grove selected for the reporting)
  - One user was confused by the map when she selected "kings valley" and the area was much bigger than the area she was familiar with (note: it wasn't until you clicked on the map that it was clear that it was a census tract (2000) for several small communities)
  - $\rightarrow$  when a community is selected that is part of a larger census tract, it would be helpful to have a response message explain that immediately
- All users tested intuitively accessed the metadata for each variable (and really liked getting the source information)
- Variables of interest: education, population, crime, income, community capacity, housing
  - One user thought the median household income data (2000) for CT14 didn't make sense—a recent survey of 350 homes in this area showed that the income was less than the median, thus qualifying for a community development block grant, but the Reporter data suggests otherwise.
  - $\rightarrow$  enable reporting by school districts, city limits, urban growth boundaries.

 $\rightarrow$  provide education stats for 10<sup>th</sup> grade, and would prefer to see combined graph of 5<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade progress.

- One user looked at Employment variables and commented that "it is interesting that just *professional services* is there. It was unusual to not see all the services listed. They wondered why."
- Two users were not quite clear how to return to RCE home page (third user clicked on secondary banner to return to RCE home)
  - $\rightarrow$  make text bigger for returning to RCE home
  - $\rightarrow$  make secondary banner clickable back to RCE home [done for 3<sup>rd</sup> user testing]
- Three users preferred the reporter tool to the mapping tool
- 6. <u>Specific Advanced Mapping Tool observations:</u>
  - Mapping tool did not work for one of the users tested (apparently the server was down)
  - Two users did not use maps very much in their job
  - One user used maps a lot in their job (e.g. displaying employment % change by county)
  - Two users entered in a location in "place name" but didn't know what to do with result (was not clear to click on "layers") also didn't know if location was correct since there wasn't any annotation
    - $\rightarrow$  add county boundaries and names as default layer
    - $\rightarrow$  provide some direction to user to now click on "layers"
    - $\rightarrow$  provide more direction on how to use zoom tool
  - Map layers of interest: cities, populated place names, county boundaries, imagery, key watersheds, soils
    - $\rightarrow$  add school district boundaries, water district boundaries, city names (to cities layer)
  - How to access mapping tutorial was not obvious to one user
    - $\rightarrow$  add link to mapping tutorial to help section of advanced mapping tool
    - o Note: link to tutorial was broken from home page help section
  - One user did not know to click on "advanced mapping tool" when the "maps" button was clicked.
    - The same user did not know to click on the blue arrow in the advanced mapping tool after she typed in Hermiston
    - "Find" on the mapping tool was unclear to the user...didn't know what to do next

 $\rightarrow$  When a user clicks on find, get rid of the intermediary step, and provide the explanatory directions for the 2 options.

 $\rightarrow$  Can we have the "return" key act in the same way as clicking on the blue arrow? When using the place name search.

• One user wanted more previews of what could be created in the advanced mapping tool

 $\rightarrow$  Show a sample of the formatted print map (thumbprint) in the advanced mapping tool

 $\rightarrow$  in the mapping tools introductory section, let the user know that they can access free GIS software and be able to import their maps into documents and slideshows with this tool.

 $\rightarrow$  on the formatted printed map, add a sentence to the map that says that it was created using the \_\_\_\_\_\_Explorer site (add URL).

- One user wanted to be able to make maps of each of the variables by county (e.g., housing density by county)
- One user preferred the mapping tool to the reporter tool