CHRIS Information Center Electronic Fees Evaluation Finalization

Staff Report

The electronic fee evaluation issue was discussed and tabled at the April 29, 2010 SHRC workshop. Background information on the fee schedule issue is available in the April 29, 2010 staff report, and will not be repeated here.

At the April 29, 2010 SHRC Workshop, the Commission requested additional information regarding CHRIS products and policies, and directed the following questions to OHP and the Information Centers (ICs) of the CHRIS:

1. How did we arrive at the evaluation fee structure?
2. What is an electronic records search, and what are the products provided as part of this type of search?
3. Why is there variation in products from IC to IC and customer to customer?
4. Are the electronic records search fees tied to product value or IC operating costs?
5. What are the restrictions on use of IC records search products, and what are the reasons for these restrictions?
6. What are the issues and concepts related to the CHRIS that could be addressed in the Statewide Historic Preservation Plan update?

The ICs and OHP have responded to these questions in a document accompanying this report, and have also provided information on ongoing efforts directed at product and procedure standardization. Additionally, the CHRIS is restarting an assessment and planning process that will result in a vision for the future of the CHRIS, and an implementation plan for this vision.

The ICs and OHP recognize that fairness to the customer is a key issue in making decisions regarding products and fees. An online IC customer survey was conducted recently, and those results, coupled with planned meetings with the CHRIS Working Group, ICPAC, Native American Tribes, and other stakeholders will help us to assess the needs and desires of customers, helping us to prioritize our efforts while taking care not to disrupt IC operations by stressing their income and ability to operate.

Finally, the ICs and OHP intend to continuously assess the financial status of the CHRIS, including the effects of the electronic fees on IC income (and therefore, also the cost to customers) as more ICs develop modernized data management systems.

Staff feels that while numerous issues remain unresolved with regards to the future of the CHRIS, an effort has been underway, and will continue, to plan for the future of the CHRIS and to continue to improve on the products and services that have helped support historic preservation in California for over 30 years.

Based on the data collected from two ICs to date, there has been a slight increase in IC income from the average search conducted using the electronic fees. This was not unexpected, and the reasons for this are provided in the documentation accompanying this report.

The electronic fees reflect an effort to continue and complete a transition to modernized operations in the CHRIS. They should be and will be assessed and modified in the future, as circumstances change, and some of the existing unknowns about the future of the CHRIS become known. Issues of product and procedure standardization did not develop because of the fees, but existed before the fees were introduced. The CHRIS efforts to resolve these issues will continue, and having the fees in place will allow IC operations to continue normally during this transitional period.

Recommendations

Staff recommends that the State Historical Resources Commission approve adoption of the Electronic Fees.

Eric Allison
CHRIS Coordinator
July 8, 2010

Attachment 1

CHRIS Responses to SHRC Questions

July 8, 2010

CHRIS Responses to April 29, 2010 SHRC Questions

Question #1 - How did we arrive at the evaluation fee structure?

In February 2007, The Results Group (TRG) and Northwest Information Center (NWIC, Sonoma State) began by establishing the goals of the electronic fee structure project. The goals were threefold:

- Develop an equitable fee structure that would generate revenues comparable to the existing hourly-based fee structure
- Develop a fee structure that covers all overhead costs, including the staffing and technology to build and maintain the Geographic Information Systems (GIS) system
- The fee structure must be adequate for all Information Centers

The underlying assumptions were:

- The GIS system would dramatically shorten the time required to complete record searches
- The end product would be easier to use and better quality
- Considerable staff time would be required for training and to input data into the GIS system
- There would still be a minimum fee for all projects
- Customers would utilize in-person searches less often
- Rapid response requests would decline
- The new fee structure would not include plans for distribution of GIS spatial data due to unknown financial implications; and distribution of results as maps would be in hard-copy format or as PDF (an electronic document format) files on disk
- A unique fee structure may be created for each type of record search

Electronic fee testing process

- Northeast Information Center (NEIC, Chico) supplied general information about past Timber Harvest Plan (THP) requests and TRG applied the proposed electronic fee structure to it
- South Coastal Information Center (SCIC, San Diego) tested standard Historical Resources Consultant's record searches by applying both their existing electronic fee structure and the trial electronic fee structure, tracking all cost points
- NWIC had researchers track their time for 30 hand-mapped Historical Resources Consultant's record searches, 20 THP record searches, and 15 Non-Historical Resources Consultant's (e.g. environmental planners) record searches, and then had a researcher conduct the identical record searches using the GIS system.

After reviewing the trial run results and incorporating the input from other centers, TRG and NWIC refined the structure, recalculated the results, and created the recommended new fee structure. The electronic fee structure was further refined by feedback received from consultants and review by participating ICs. The updated fee structure was then adopted by the State Historic Resources Commission on 28 July 2008.

Results of Electronic Fee Testing and Implications for Goals 1-3

Goal 1

- The older (hard copy) fee structure is based on the amount of time spent completing a request. The entire process for managing and accessing the inventory is fundamentally changing and the new fee structure had to be fundamentally different to accommodate for the change
- While the charge for a single GIS-based record search can vary from its corresponding hand-mapped charge, over several records requests the revenue generated is comparable to that of the current hourly-based fee structure
- Even under the existing structure, some centers are struggling financially because of variations in the size of their geographic area, the amount of development or regulatory activity, and in the requirements of and support provided by their host institutions. **While the goal was to create a structure that produces comparable revenues, the ICs (which are generally understaffed and underfunded) cannot afford a drop in revenues that would occur if the current hourly-based fee structure was applied to GIS record searches; therefore, we aimed at erring on the side of slightly increased revenues**

Goal 2

- With the introduction of new GIS technologies, a portion of the time spent on the majority of jobs would drop. However, given new hardware/software costs and the associated training to train staff to utilize new technologies, at minimum, revenues would need to remain consistent with those based on the hourly-based fee structure
- Digitization of resource and report (survey) shapes also represent a significant amount of staff processing time
- Paper maps and their associated resource and report shapes never "crash", necessitate Information Technology (IT) staff support time, or need to be consistently backed up
- The number of entities or shapes (for both resources and reports) and quads were chosen as price points because they are not subjective and correlated best to the amount of time spent mapping by hand

Goal 3

- SCIC was the first IC in the CHRIS system to transition to relying on electronic data as their primary inventory of resources and reports. Given this early transition and associated need to develop a method to charge for this new service and product, they tailored a fee structure to suit the needs and revenue demands of their particular IC
- NWIC, SCIC and NEIC were invited to participate in trialing the structure because of their GIS capabilities and to help address the great variability from IC to IC region in jurisdiction processes, economic conditions, and development rates.
- Since SCIC had conducted records searches in electronic format for several years, TRG consulted SCIC as a source of information about how this new technology had affected their work, and what work-flow and revenue trends they had noticed. In addition, during the trial runs, the current SCIC electronic fee structure was applied to the NWIC's current hourly-based fee structure. The SCIC electronic fee structure only accounted for a 70% revenue recovery.
- For Historical Resources Conultant requests, the SCIC structure does not proportionately align the amount charged with the amount of data requested. Small requests cost almost as much as very large requests. In several instances during the trials, the SCIC fee structure resulted in higher fees for smaller projects, while generating disproportionably less revenue for the larger projects
- During the testing phase, NWIC invited the input of other ICs through a conference call and meeting (for those able to travel to NWIC)

- By including all the ICs with their differing revenue and expense situations, the development of the new fee structure was centered on the financial stability of the CHRIS and sought generate equitable revenue for any IC

Question #2 - What is an electronic records search, and what are the products provided as part of this type of search?

A records search consists of examining what prior research has been conducted and if there any known cultural constituents (archaeological sites, isolated artifacts, historic buildings, etc) in a given area; an electronic records search utilizes GIS linked to electronic database information in order to facilitate this research and produce coherent results for IC clientele. Electronic record searches allow ICs to quickly and thoroughly examine digital maps and data to produce results in a number of formats for clients. It is the intention of all ICs to fully facilitate GIS based records searches; as it currently stands, individual ICs differ in their progress in the digitization process and utilization of GIS.

ICs offer an array of products from electronic record search results including (but not limited to): electronically produced maps, digital copies of reports and site records, historic maps, digital data (e.g. spatial data), information gleaned from queries of resource and report databases, aerial photography, spatial data provided by local jurisdictions (e.g. parcel data, roads, etc), and OHP property directory data. Digital data is updated on a daily basis in order to provide clients with the most current and accurate information possible.

The electronic/digital products available at CHRIS ICs include*:

- Resource record PDFs
- Report PDFs
- OHP Historic Property Directory (HPD) and Archaeological Determinations of Eligibility (ADOE) in OCR-PDF-files
- Electronic records search maps in PDF format
- Resource and report spatial data from the CHRIS Inventory (only at SCIC or at other ICs via contracts or MOAs)
- Additional sets of spatial data provided by local jurisdictions (e.g. San Francisco's historic districts, parcel layers, etc.)
- Resource database printouts in either List format (limited info) or Detail format (all info)
- Report database printouts in either List format (limited info) or Detail format (all info)
- Report database printouts in bibliographic reference format
- Export of resource and/or report database information into Excel or Word files
- Historic Maps

Other products are being explored and evaluated for adoption as standard offerings.

*Not all products are available at all ICs

Question #3 - Why is there variation in products from IC to IC and customer to customer?

Standardization of procedures and products has been a long-recognized need for the CHRIS. OHP and the ICs have worked together over time to maintain and strive for standardization, where feasible. OHP has hosted a number of recurring teleconferences (generally weekly or biweekly) for several years, to facilitate communication, sharing of information, and standardization of practices in the CHRIS.

In addition to answering the above question, it is important to provide a brief status report on efforts to standardize CHRIS procedures and IC products. Through recent efforts, especially over the last year, the CHRIS has developed a set of standards and draft standards that will facilitate both efficient processing of submitted digital data and standardization of customer products. These standards address spatial data, other database information, and PDFs. It is recognized by all ICs and OHP that adoption of and compliance with standards will be a crucial part of improving our collective inventory maintenance and customer service.

The main reasons for the variations in products between ICs and between IC customers are as follows:

- The CHRIS did not have a set of electronic standards to guide development of GIS and other electronic products. As a result, ICs that were the early adopters of GIS and electronic document use developed their own ways of storing, managing, and providing the information, and as a result, their products differ from each other.
- For large projects, which were generally initiated through an external agency providing funding to OHP, the product needs of the funding source guided the digital conversion efforts of OHP and the ICs. This created products that while useful, weren't geared toward IC and OHP inventory management.
- Throughout the history of the CHRIS, individual ICs have worked with the stakeholders in their service areas (e.g. local, state, and federal agencies) to develop collaborative arrangements that promote and facilitate historic preservation. As a result, the arrangements may vary significantly, depending on the circumstances and parties involved in each situation.
- As noted on page 1, most ICs were and are concerned about providing spatial data directly to their customers, as this might affect their income in unknown ways.
- Numerous IC/customer agreements, such as Memorandums of Agreement, that specify unique or specialized products or services for federal, state, or local entities or Native American tribes. Not all ICs have these agreements, and the agreements vary greatly in their purposes and terms.
- The ICs are at various stages in conversion to digital operations. Results of a recent survey of the ICs indicated that these differences are largely due to variations in available funds.

Table 1 on the next page provides a summary of different ICs and the electronic products they provide to their customers. As it indicates, not all ICs have the same types of products available at this time. Variation between ICs for the same type of product is not noted in the table, but is explained above.

Table 1: Information Center Electronic Records Search Products

IC	Report Bibliographies	Resource Databases Queries	PDF-Sites	PDF-Reports	Maps	Other
CCaIC (Turlock)			X			Copy of National Archaeological Database Bibliographic Entries
CCoIC (Santa Barbara)	X		X	X	X	
EIC (Riverside)			X	X		
NCIC (Sacramento)			X	X	X	Planning Reviews
NEIC (Chico)	X	X	X	X	X	resource database query summaries; report database printouts
NWIC (Rohnert Park)	X	X	X	X	X	Historic Maps; Database Printouts
SBCIC (San Bernardino)						AutoCad overlays of topos with sites and surveys
SCCIC (Fullerton)			X	X		
SCIC (San Diego)	X		X	X	X	1920s Aerial Photography; Historic Maps

Question #4 - Are the electronic records search fees tied to product value or IC operating costs?

Just as with the hourly-based fee structure, the interim CHRIS IC Electronic Fee Structure is tied directly to overall IC operating costs. From the beginning of the fee development process with TRG, our goal was to meet or slightly exceed annual revenues generated by hourly-rate fees because

- Use of the total annual income as a basic platform provided a known financial quantity that would allow the ICs to continue with existing services (see Question 1 response, Goals 1 and 2).

The "slightly exceed" concept was included in the original electronic fee calculations because

- Four or five ICs are already under financial pressures that limit staff, the conversion to GIS, etc. due to such factors as the variations in the size of their region and the amount of regulatory activity that occurs within it
- Rapid response revenues would decrease based on information provided by SCIC
- There would be increased costs attributable to the transition from paper-based to electronic records searches, i.e., additional hardware and software; maintenance of digital data; and staff training.

Question #5 - What are the restrictions on use of IC records search products, and what are the reasons for these restrictions?

Archaeological resources are nonrenewable and easily damaged. Their scientific, ethno-cultural, and aesthetic values can be significantly impaired by disturbance. Therefore, access to such information is restricted in order to prevent vandalism and artifact hunting, and to protect landowners from trespass. Those granted access to restricted information available at the CHRIS centers sign an Access Agreement whereby they agree to keep site content and location information confidential by not disclosing it to unauthorized individuals or including it in publicly distributed documents. (California Government Code Section 6254.10 exempts archaeological sites from the California Public Records Act).

Access to IC products that include archaeological site information is limited to the following individuals:

- **Historical Resources Consultants:** Consultants must meet the Secretary of the Interior Standards under Archaeology, History, or Architecture or meets the qualifications for State Archaeologist or Historian. Less qualified professionals and/or students working under a qualified individual are also able to access the confidential information.
- **Landowners:** Proof of ownership must be provided, such as a deed or current tax statement which clearly links their name with an assessor's parcel.
- **Scholars:** Access to confidential information is provided to scholars conducting research for unfunded projects who meet the Secretary of Interior or State standards or students working under such individuals.
- **Native American Tribes:** Tribes may have access to confidential CHRIS information under specific MOUs with specific IC's.

Confidentiality issues, specifically, <u>the locations of archaeological sites</u>, are magnified when addressing electronic and digital CHRIS data (i.e., developing electronically managed levels of access for clients;

speed of and low file-size for retrieval for huge amounts of information; etc. . Several policies are in place currently regarding this issue:

- The ICs will not provide nor will they accept resource records via email. Sending confidential information over the internet without a secure means of transferring this data is prohibited in the CHRIS because of the potential for information regarding site locations to inadvertently get into the wrong hands.
- No on-line access to confidential information is planned until adequate input from and dialog with stakeholders is obtained and a secure and viable system for doing so is constructed. One online system does exist for a portion of the state (the Mojave Project in the CA Desert), but this was obligated via contract in 1997, and will not be actively maintained and updated unless policies and agreements are established to govern its use and maintenance.
- The results of electronic records searches are produced on a PDF or hard copy map. At this time, spatial data are not provided for the following reasons:
- Until guidelines and protocols are developed, spatial data may not be transferred to agencies or private consulting firms to preserve the original integrity of the data from inadvertent or intentional changes.
- Until CHRIS can determine, at least in broad terms, the financial impacts of selling the CHRIS spatial data, under the auspices of a CHRIS Strategic and Business Plan and Feasibility Study (see question 6 response), there is a potential for an agency or consulting firm to build their own databases and not return to the ICs for records searches for new projects, which could greatly affect IC incomes.
- Lastly, related to document integrity above, any PDFs, including resource records, reports, or records search letters, are provided as "locked" documents. This preserves the original integrity of the documents from inadvertent or intentional changes.

Question # 6 - What are the issues and concepts related to the CHRIS that could be addressed in the Statewide Historic Preservation Plan update?

As part of OHP's scheduled update to the Statewide Historic Preservation Plan ("State Plan"), existing historic preservation goals and objectives for California will be will be assessed and possibly replaced or revised. While the CHRIS is primarily associated with historical resource inventory management and access, nearly all of the issues addressed in previous State Plans (e.g., Outreach and Education, Land Use Planning, (the practice of) Preservation Archaeology) involve providing services and information currently provided by the ICs.

The CHRIS inventory management function is currently the highest priority planning item that could be included in the Plan update. While the State Plan is the place to address needs and issues in general terms, more detailed planning documents are also needed. OHP and the ICs have recognized the need for a business plan for the CHRIS, as well as the need for a formal state-approved Feasibility Study Report (FSR). The FSR is a state-required document that will be needed for approval to proceed with the IT modernization of the CHRIS. Our intent is to develop these two documents in collaboration with CHRIS stakeholders, including the SHRC.

Presented below is a quick synopsis of the issues and needs of the CHRIS that will provide direction and goals to guide development of the State Plan update.

- Efficiency in historical resource information management and access (keeping up with technological development; data conversion)
- Realistic security measures given all variables, i.e., host institutions, DPR, appraisal of threat to ICs and to DPR
- A high priority need to develop additional funding sources for the CHRIS ICs and continue to utilize them
- Reemphasize the functions of the ICs to include not only management of the Inventory but also public outreach and education in historic preservation. Past and current efforts in the latter have been limited by funding; however, there is great potential in partnering programs (see below)
- Develop a Strategic and Business Plan that will identify in detail how CHRIS presently operates, where CHRIS wants to be in 5 years, and how to get there with least adverse impact to present system because it is so integrated in the regulatory processes of so many private and public agencies (because of OHP's agency obligations, will also include FSR). Both these efforts will involve input from stakeholders
- ICs have worked long years to develop the professional depth of materials including ethnographic, local history, soils, early atlas, or other local inventories that provide private and public agencies with a records search and associated recommendations substantiated by extensive research. The ICs provide these types of records searches to planners and others outside the field of historical resource management and incorporate a level of expertise that is much greater than just maintaining the inventory
- The CHRIS needs to be organized so that clients who meet the criteria for confidential information (i.e., know how to interpret the data) can have access and products in keeping with the economic realities resulting from the demands for quicker results
- The CHRIS operates in the context of preservation in California. Therefore, renovation to our structure needs to proceed at a pace that will keep momentum moving forward without weakening the existing system

Additionally, there is great potential for growth in preservation outreach, which can be met by development of CHRIS-only projects or by CHRIS in partnerships with Native American tribes and with local, state, or federal agencies. The projects can include new ways to display CHRIS information or to utilize staff time and expertise that will encourage public support of historic preservation and meet the public education goals encouraged by NEPA & CEQA. This outreach could also include exploring additional funding sources for ICs. Outreach may include (but is not limited to):

- Kiosks or booths at libraries (e.g., History Room at the Main Branch of the Sonoma County Library)
- Local museums displays (e.g., Sonoma County Museum, The Grace Hudson Museum / Sun House, etc.)
- Web / smart phone short-blurb in support of tourism/heritage tourism by locality, (e.g., Petaluma Walking Tours)
- IC staff participating in preservation workshops or presentations (e.g., Chico 2008 Historic Preservation Conference)
- IC staff acting as Federal on-scene Historic Resources Specialist in emergency situations (e.g., oil spills)

Attachment 2

Fee Structure Rationale provided for NWIC by The Results Group

8-27-2007

New Fee Structure Rationale:
Questions and Answers

Basic concepts behind the new fee structures:

Questions	Answers
1. Why was a new fee structure developed?	The current fee structure is based on the amount of time spent completing a request. With the introduction of new GIS technology, a portion of the time spent on the majority of jobs will drop. However, given the backlog of records to be processed, the upkeep on both the paper and digital systems during and after the long transition period, and the training to bring staff up to speed on the new technology, operating costs will most likely remain level. The ICs cannot afford a drop in revenues that would occur under the current fee structure. Therefore, a new fee structure based on other variables needed to be developed in order to keep revenue levels even. Also, the recommended electronic fee structure is designed for the distribution of results in either hard-copy format or on disk. It does not presently include plans for distribution of shape files.
2. How was the new fee structure developed?	The Results Group (TRG) and NWIC began by defining the scope of the project and surfacing its underlying assumptions (see Project Update). TRG and NWIC acknowledged that developing a different but mostly matching structure would be a deductive process and would require estimating and working in generalizations. TRG asked SCIC, a center that runs purely electronically, about how the new technology has affected their work and what trends they have noticed. We then set about identifying all possible new price points and invited the input of other centers through a conference call and meeting (for those able to travel to NWIC). We then determined which price points correlated best to the present fee structure, and built a trial fee structure based on this determination. NWIC, SCIC and NEIC were invited to participate in trialing the structure because of their GIS capabilities and to help address the great variability from IC to IC region in jurisdiction processes, economic conditions, and development rates. Including other centers helped to ensure the new fee structure would create enough income for any IC. During the trial, all ICs received a project update containing our initial assumptions and current direction of the new structure, followed by a phone call to discuss any questions, thoughts or concerns that might have arisen. After reviewing the trial run results and incorporating the input from other centers, TRG and NWIC refined the structure, recalculated the results, and created the recommended new fee structure.
3. How was the trial test conducted?	NEIC supplied general information about past THP requests and TRG applied the proposed electronic fee structure to it. SCIC tested standard CRCs by applying both their existing electronic fee structure and the trial fee structure, tracking all cost points. NWIC had researchers track their time for hand-mapped CRCs, THPs/CDFs, and Non-CRC, and then had a researcher conduct the same record searches using the GIS system. All results were compared and analyzed, and the fee structure was adjusted accordingly.
4. How many years is this fee structure intended for use?	This fee structure is intended to establish a widely applicable beginning platform for use by any IC who can provide clients with access to electronic information. There is no predetermined end-date. It is meant to last as long as it is useful and be added to and changed as the CHRIS representatives see fit.
5. Since SCIC has already been using an electronic fee structure, why not adopt theirs?	SCIC was the first IC in the CHRIS system to transition to relying on electronic data as their primary inventory of resources and reports. Given this early transition and associated need to develop a method to charge for this new

	service and product, they tailored a fee structure to suit the needs and revenue demands of their particular IC. During the testing-phase, it became apparent that the recommended fee structure would create significantly more income than the GIS fee structure that they presently use. SCIC electronic fees have been in-place for over a year and their clients have become used to the amounts they presently pay. Their clients would probably strenuously object to a sharp increase. In part, SCIC is able to operate using their fee structure because they have additional income, i.e., contracts with about six regulatory agencies that pay an annual subscription fee for the update/distribution of shapefiles. Therefore, they are not solely dependent upon records search and copy income as are the other ICs. There are at least two factors that appear to make their "subscription service" feasible: each of the agencies has an archaeologist on staff, and SCIC is selling shape files. Compared with other ICs in the CHRIS, there are understood differences in the geographic extent of the SCIC and revenue needs. For centers covering multiple counties and receiving other types of requests (such as THPs or Non-CRCs), the SCIC structure does not apply well. The recommended fee structure is an attempt to have a fee structure that can be utilized by the entire CHRIS and not create a revenue shortfall for any particular IC. During the trial runs, the current SCIC electronic fee structure was applied to the NWIC's current fee structure. The SCIC electronic fee structure only accounted for a 70% revenue recovery. Also, for CRC requests, the SCIC structure does not proportionately align the amount charged with the amount of data requested. Small requests cost almost as much as very large requests. In several instances during the trials, the SCIC fee structure resulted in higher fees for smaller projects, while generating disproportionably less revenue for the larger projects. Another goal of the recommended fee structure is to make these factors align better.
6. Why were time, shapes and quads chosen as price points in the new fee structures?	Though the time spent mapping is affected by the GIS system, there are other components of records requests, such as pulling/examining historical maps; consulting various local, state and federal inventories; looking at ethnographic information; copying requested information; writing letters; and billing that are unaffected and for which charging based on time spent is still effective. To make up for the dip in time spent mapping and corresponding dip in revenues, charges based on shape and quad quantity have been added. Shapes and quads were chosen because they correlated best to the amount of time spent mapping by hand. The shapes also represent a significant amount of staff processing time from the moment that record or report is submitted, through its digitization, and into the management of that shape over time. Paper maps and their associated shapes never "crash" or necessitate IT staff support time or need to be backed up. All of these new tasks require additional staff time for which the current fee structure never was designed. Other price points like acreage, for example, did not correlate well, as mapping an acre in downtown San Francisco can require much more work than mapping an acre in a rural area. Shapes and quads were also chosen because they are concrete and non-negotiable. Price points that would have been dependent on an operator's individual judgment, like the number of maps produced and amount of modification to the shapes symbology, were removed. Such price points could have caused confusion for operators, and could have been more easily disputed by customers.
7. Why wasn't the trial structure adopted? Why were adjustments made to it?	There are four major reasons: 1) to simplify its application by the ICs and to make it less negotiable and more understandable to clients and the general public; 2) to account for the cost to initiate and to maintain all shape fees (the structure now begins at "one" shape); 3) to better match the existing revenue rates overall and per job (the trial structure would have caused a notable increase in fees and revenues); and 4) to guard against "data mining" by

	making adjustments to the shape and quad scales.
8. Why is there a $25 "address mapped" flat fee?	Unlike digitized shapes that involve a labor intensive process, address-matched shapes (geocoding) are completely automated. There is, therefore, a dramatic reduction in cost for both entry and maintenance of these types of shapes. For example, 1000 properties from the OHP HPD (they have existing database with address information) can be appended in a relatively short time, like one to two hours. Digitizing; completing attribute information; QC; and appending 1000 shapes is equivalent to weeks of work. Cost for address-matched shapes, therefore, can be kept to a minimum. Once all HPD information is available from OHP, ICs can create a separate layer for these resources and by so doing be able to track their numbers within a given project area.
9. Why wasn't the number of bytes in a job used as a price point?	As stated in Question #7, the goal was to determine the most concrete and non-negotiable price points. As such, caution was taken to determine price points that were not variable. When dealing with shapefiles, the number of bytes comprised is related to the number of vertices used to draw the shape. This varies from digitizer to digitizer and would introduce too much variability for use as a price point. For example, one individual might click the mouse ten times to draw a polygon and another might click the mouse fifty times to draw the same polygon; one digitizer might set the program to draw a line using a streaming function that continues to place vertices, and another might only place one at each end. The file size (or number of bytes) of the maps produced is also related to the resolution and background data (hillshades and topographic maps) used in printing. Additionally, as technologies continue to evolve, data compression components of these programs vary the amount of bytes in the electronic data, as the different file formats contain different file compression capabilities. If the number of bytes used was the principle price point, the fee structure would become too variable over time as compared with non-negotiable price points such as shapes and quads.
10. Why not use one "fully loaded" fee-unit similar to our hourly fee?	There is no one "fully loaded" fee-unit that results in fair prices across the board. For example, we explored charging solely by the number of shapes. However, since many jobs do not involve any shapes, an additional fee would have to be applied. Applying another variable, like a $150 flat fee or a $150/hour fee, to a shapes fee is somewhat feasible, but adding the quads fee creates a more closely aligned match to the current fee structure while allowing for the use of the same structure for both CRC and THP/CDF requests.
11. Why should the new fee structure bring in the same or slightly more revenues than the old structure?	As mentioned above, the ICs anticipate that operating costs will remain level for the foreseeable future, which is why the fee structure was designed to produce comparable revenues to those of the existing structure. However, even under the existing structure, some centers are struggling financially because of variations in the size of their geographic area, the amount of development or regulatory activity, and in the requirements of and support provided by their host institutions. These factors determine revenues and operating costs. For example, the three ICs with large areas of USFS land have agency's archaeologists submit site records (incurring cost to add to the Inventory) but do not conduct records searches at the ICs (the way CHRIS has structurally established to cover adding records). Although the goal has been to create a structure that produces comparable revenues, for reasons such as this, we aimed at erring on the side of slightly increased rates.
12. Why can't you guarantee that the new fee structure will bring in the exact same revenue amount that the current structure brings in?	The nature of the work is fundamentally changing and the new fee structure had to be fundamentally different to accommodate for the change. Therefore, while over several records requests, the amount charged is very comparable to that of the current structure, the charge for a GIS job can vary from its corresponding hand-mapped charge. Also, we anticipate a drop in rapid

	response requests as GIS technology will allow for faster turnaround times, so the average GIS job will tend to incur a slightly higher fee to reflect a rapid response like treatment that it will be receiving.
13. How does the new fee structure benefit the customer?	The new fee structure allows ICs to provide GIS-based products that are of a higher quality and are returned to the client within a shorter timeframe. With the proposed fees, this service will be provided for the same to only slightly higher costs over time.
14. Will the new structure affect rapid response rates?	No. Rapid response rates will remain intact. However, rapid response rates will not apply to GIS products and services. In addition, SCIC has noted that the number of rapid response requests dropped significantly because most of their work is done in GIS with the associated decrease in turnaround time.
15. How will the security of the data be protected?	Ultimately, the centers will need to face this issue together and decisions will need to be made regarding the amount and type of data made available to customers. The fee structure, in and of itself, does not address this issue, though it is designed to call attention to those jobs that request very large amounts of data. By calling for a contract or negotiated price for jobs over a certain number of quads, each center will be able to assess whether or not the request is reasonable and will be able to determine a fair price. Additionally, charges for the price points grow disproportionately larger as the data requested grows. The structure was designed this way mainly because larger amounts of data required exponentially larger amounts of time in hand-mapped jobs; but it is also there in hopes that higher charges will deter customers from "data mining."
16. How does the new fee structure apply to walk-in customers?	At this time, the proposed fee structure is not designed for walk-in customers. Since walk-in clients will not have access to the GIS at this time, the percentage (as is reflected in our current hourly rate to walk-in customers) or other fees would need to be established later when that service becomes feasible. In the future, any of the price points on the structure can be adapted accordingly.
17. How will the new fee structure accommodate for future price changes?	Any of the price points can be adapted to reflect an increase (or decrease) in charges due to any number of reasons.
18. How does the new fee structure affect the consistency of the product that will be produced?	Again, the centers will need to face this issue together and decisions will need to be made regarding the look of the product produced given the new technology. Along with developing the CHRIS electronic fee structure, decisions need to be made to arrive at a baseline of product consistency, similar to the core fields in the attribute tables for the GIS data. For example, map scales of 1:10,000 or 1:24,000 are usable standards to provide a similar product from IC to IC, yet still allow for flexibility depending on the request. Fortunately, the new fee structure is not tied to the consistency of the product that is produced, so variations between operators and centers will not negatively affect the amount the customer is charged. This variability is needed to some degree as there is variability in the client's needs and regions that the ICs operate within.

Non-CRC fee structure:

Questions	Answers
1. Why did the fee structure for this type of records request essentially stay the same?	Though the GIS does increase general efficiency with, for example, locating project areas or assessing the Native American sensitivity, the time spent was not significantly affected. As a result, charging according to the amount of time spent is still effective.

CRC - THP/CDF fee structure:

Questions	Answers
1. How was the "shape" scale developed and chosen?	Beginning with the assumption that the end result was to meet or slightly exceed existing CRC - THP/CDF revenues, the number of shapes in CRC - THP/CDF jobs were analyzed in light of the corresponding job costs, and the scale was developed by estimating a value that best correlated the number of shapes to the amount charged given the other price points that exist. Through trialing the scale, the estimates were tested and refined, producing a final scale that correlates most accurately to the hand-mapped price.
2. How was the "quad" scale developed and chosen?	Beginning with the assumption that the end result was to meet or slightly exceed existing CRC - THP/CDF revenues, the number of quads in CRC - THP/CDF jobs were analyzed in light of the corresponding job costs, and the scale was developed by estimating a value that best correlated the number of quads to the amount charged given the other price points that exist. Through trialing the scale, the estimates were tested and refined, producing a final scale that correlates most accurately to the hand-mapped price.

PDF Charges:

Questions	Answers
1. How was the PDF charge chosen?	Storage space, maintenance of equipment, periodic back-ups of large files as well as production overhead such as disks, disk covers and mailers are just a few of the new cost-types generated by maintaining and providing access to electronic information. This somewhat arbitrarily set fee covers those "non-paper" costs.
2. Why is there a charge for electronic pages in addition to the flat fee?	The charge accounts for pages of data, whether that data is in hard or soft copies. The additional flat fee accounts for time, materials and a new product being offered to customers.
3. Why is the per page charge for searchable PDFs greater than that of standard PDFs?	Searchable PDFs require special equipment, take larger amounts of storage space, and involve more staff time, all of which results in a high per page cost.

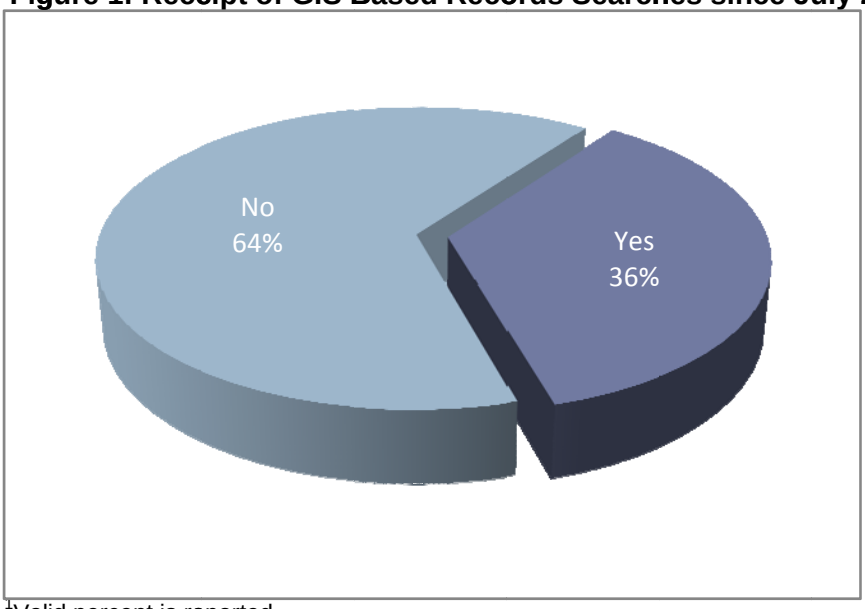
Attachment 3

CHRIS Information Center Customer Survey
Electronic Products Preliminary Report

4-29-2010

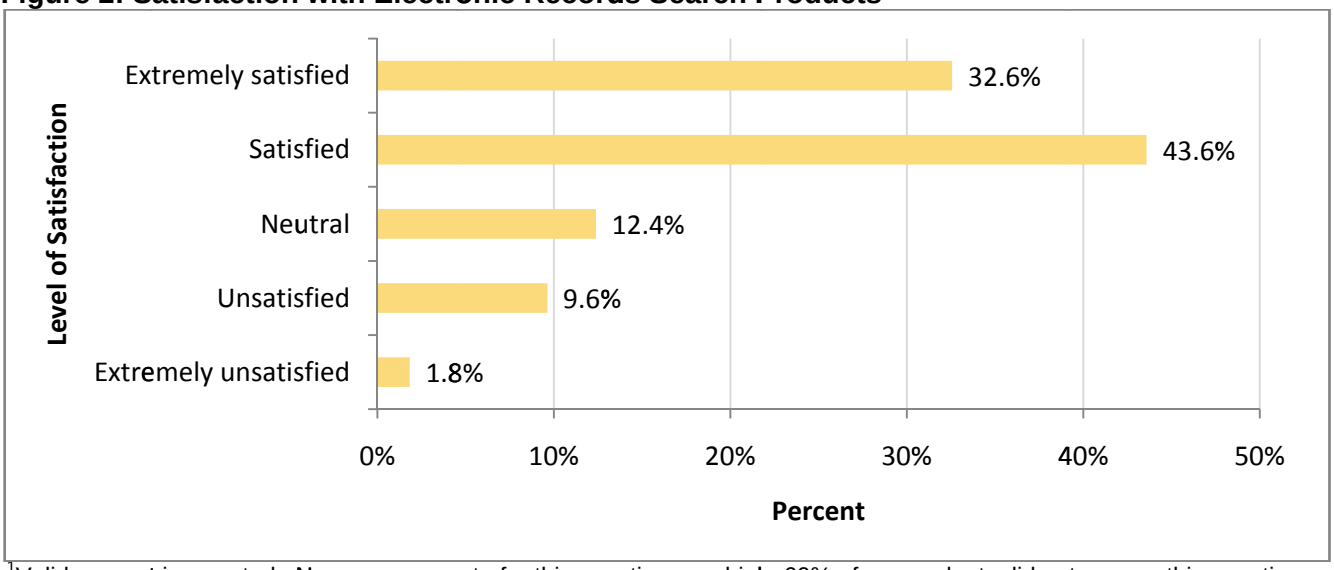
ELECTRONIC PRODUCTS

Figure 1: Receipt of GIS Based Records Searches since July 2008[1]



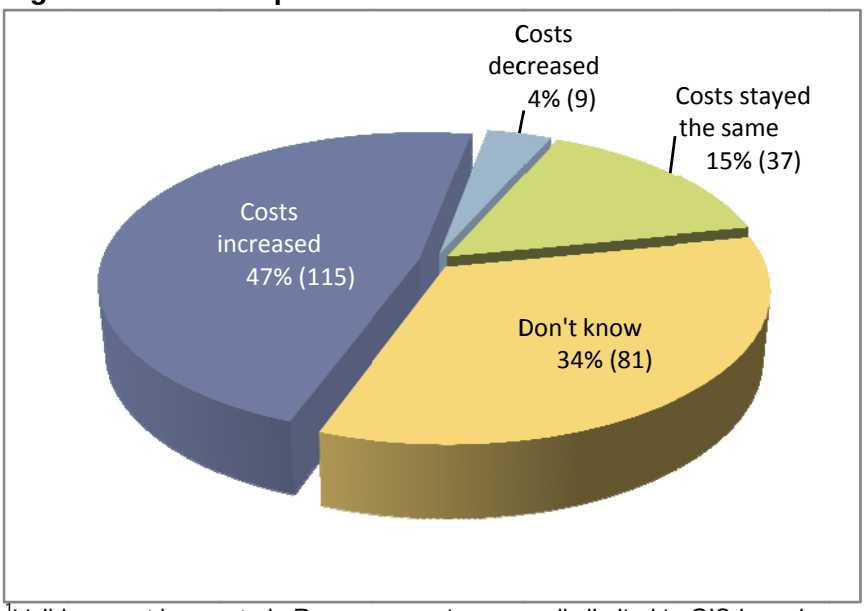
[1]Valid percent is reported.

Figure 2: Satisfaction with Electronic Records Search Products[1]



[1]Valid percent is reported. Non response rate for this question was high. 60% of respondents did not answer this question.

Figure 3: Cost Comparison from 2008 to 2009



[1]Valid percent is reported. Responses not necessarily limited to GIS-based searches. 59% of respondents did not answer this question.

Figure 4: Importance for the ICs to Maximize the Number of Detailed Maps

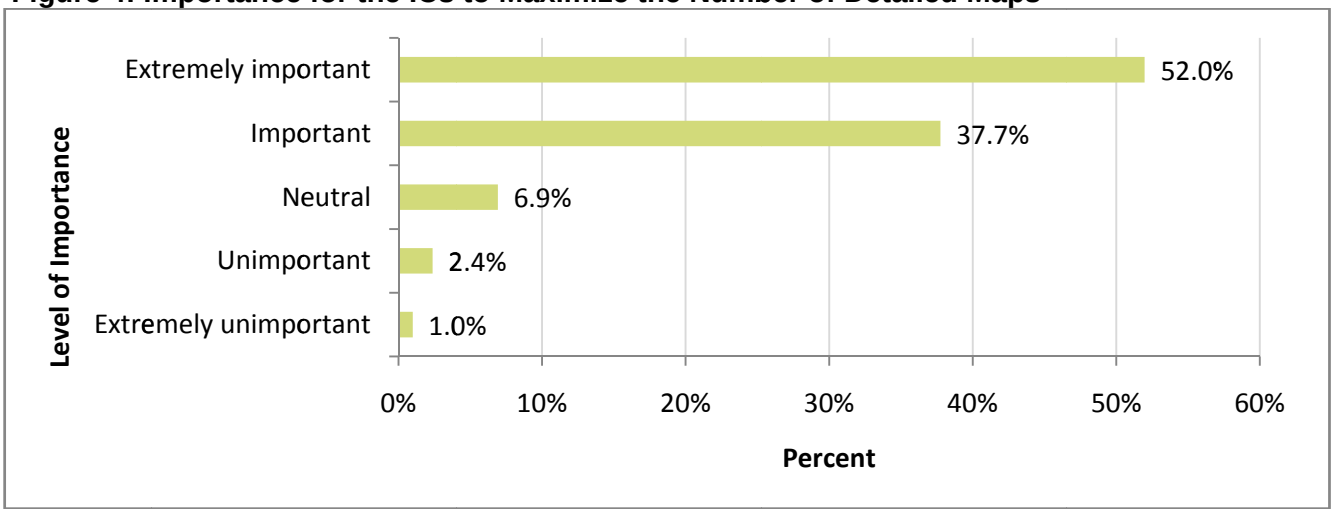


Figure 5: GIS Use

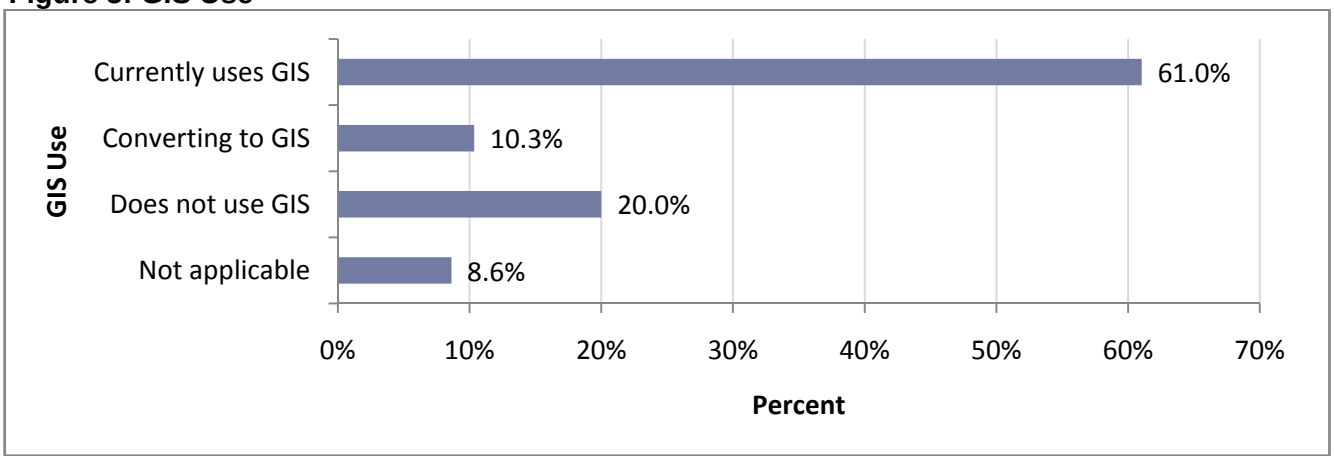


Table 1: Interest in Having Access to Specific Electronic Products

Question	Mean[1]	Std. Dev.[1]	Median[1]	Mode[1]
Please indicate your level of interest in having access to the following electronic products:				
GIS shape-files	4.4	.89	5	5
Copies of records and reports in PDF format	4.7	.57	5	5
Exports of resource information in tabular format	4.1	.87	4	5
Exports of report database information in tabular format	4.1	.86	4	5
Production of maps based on a query of specific attributes	4.4	.81	5	5

[1] Mean, Median, and Mode are calculated using a reverse scored Likert-type scale for questions about general satisfaction: 5 = extremely interested through 1 = extremely uninterested.

Figure 6: Interest in Access to GIS Shape-files

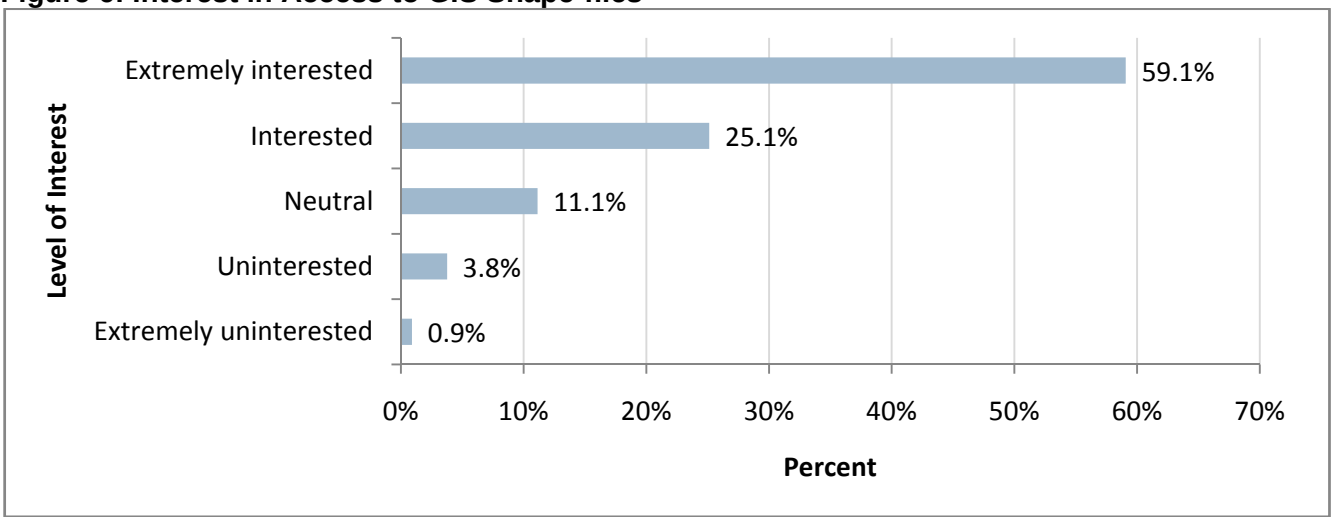


Figure 7: Interest in Access to Copies of Records and Reports in PDF Format

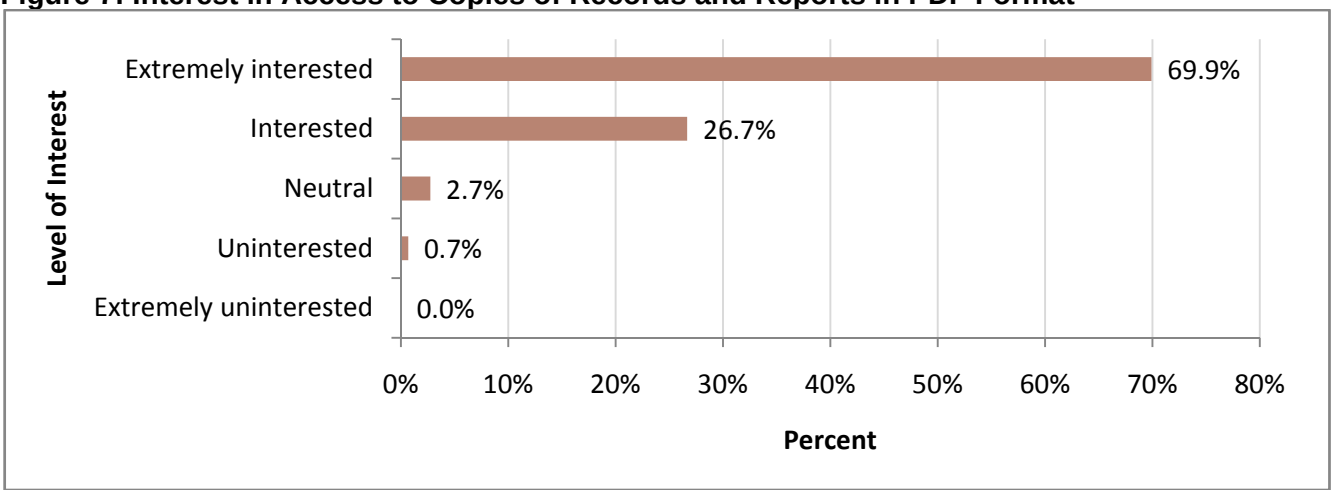


Figure 8: Interest in having Resource Information Available in Tabular Format

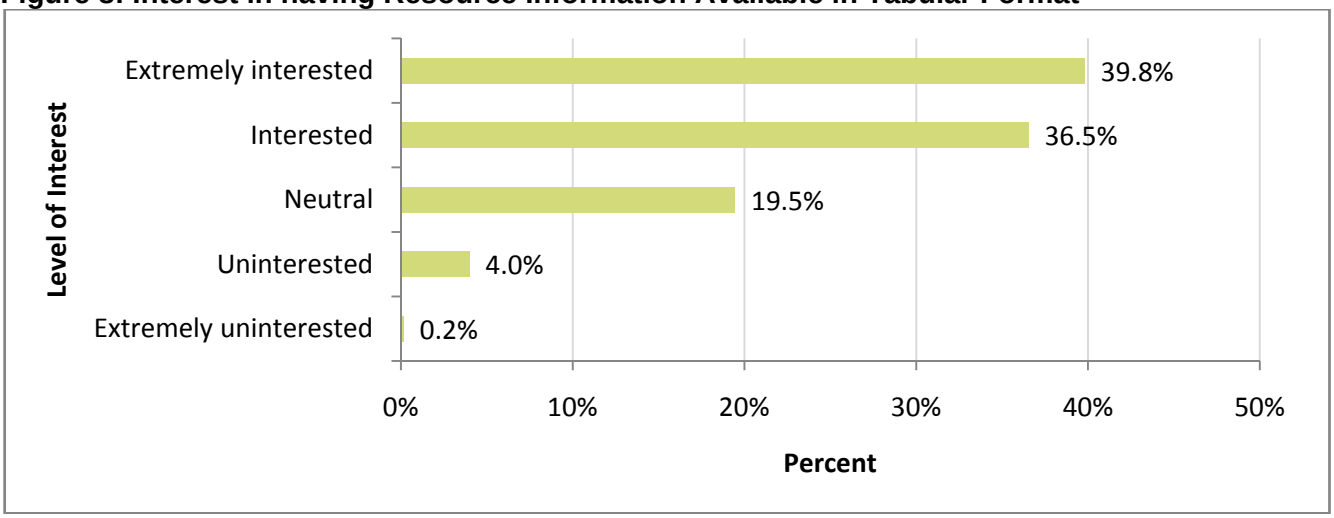


Figure 9: Interest in having Report Database Information Available in Tabular Format

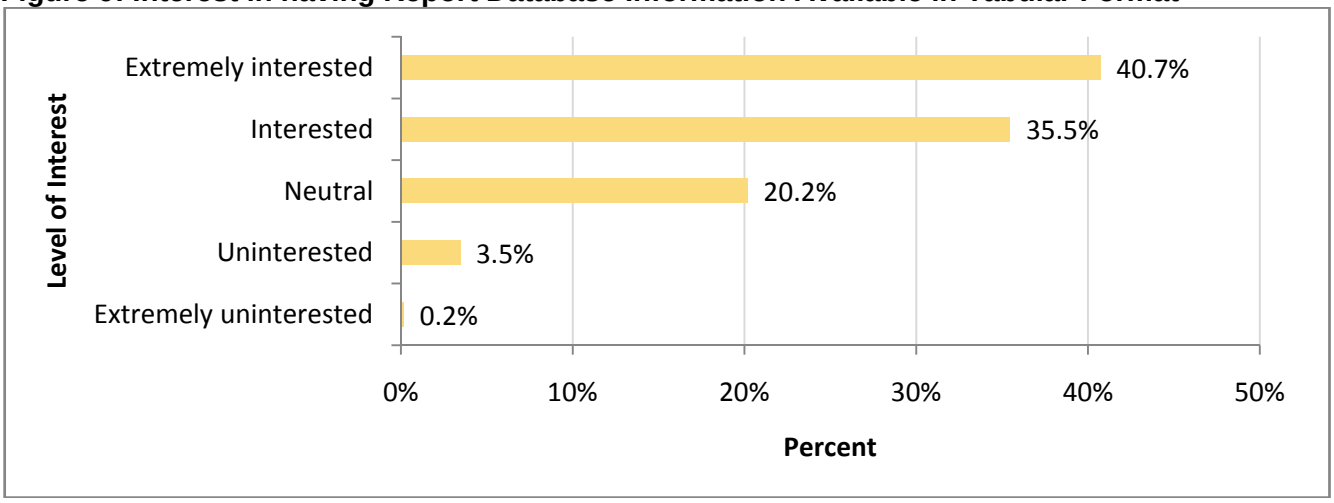


Figure 10: Interest in the Production of Maps Based Upon a Query of Specific Attributes

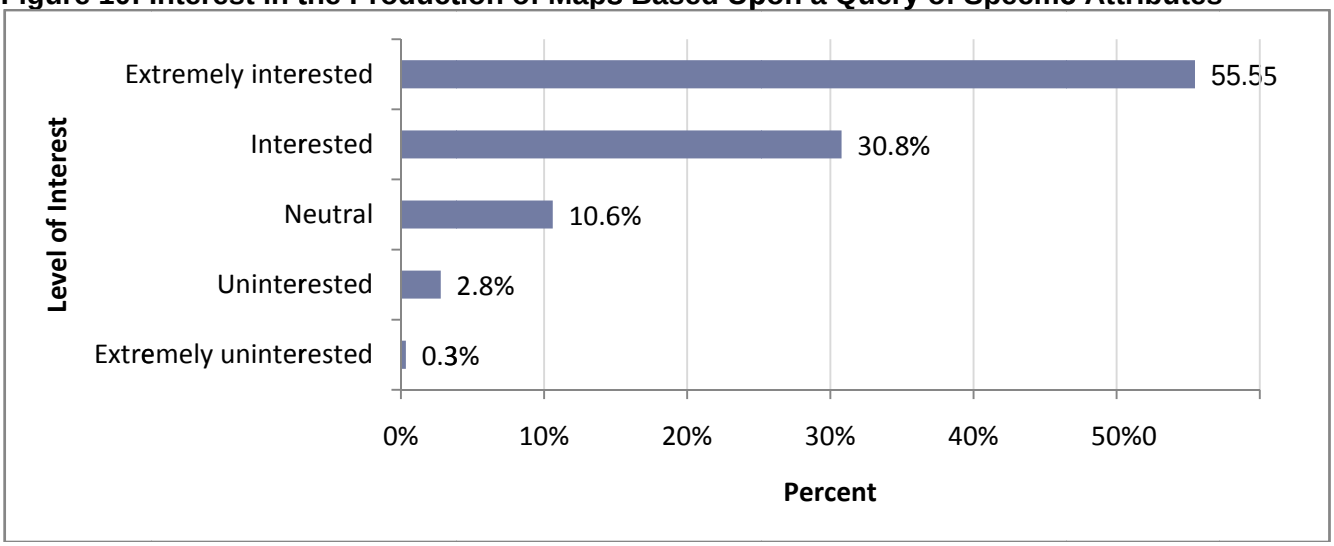
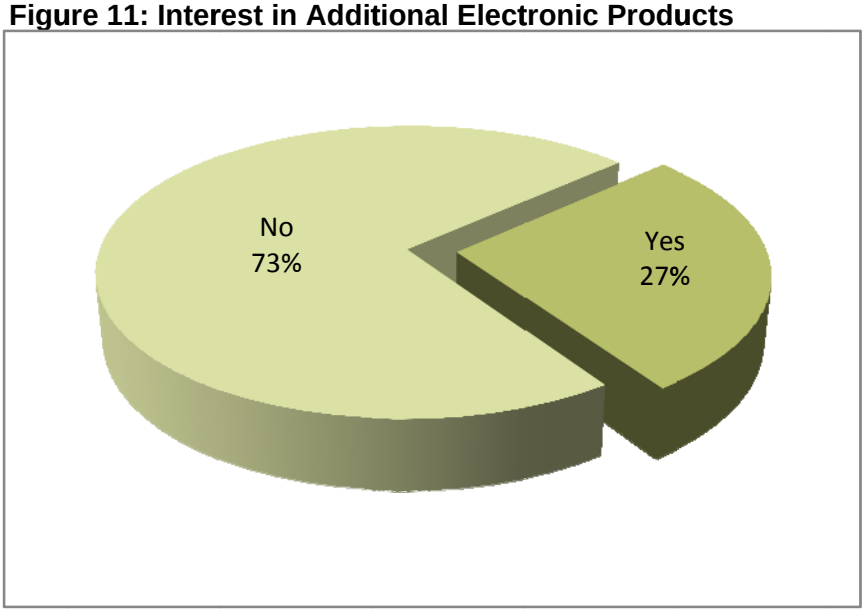


Figure 11: Interest in Additional Electronic Products



[1]Valid percent is reported.