

Introduction: Hawai'i Workforce and Labor Market Information Products and Services

Goal: To provide information and web services that will help jobseekers find training that will align their skills to the workforce demands of employers

In addition to the following Workforce Information Core Products and Services required by the USDOL/ETA TEGL 29-12, the Research and Statistics (R&S) Office planned to provide green workforce information wherever possible.

- Populate the Workforce Information Database (WIDb) with state and local data.
- Produce and disseminate state and local industry and occupational employment projections.
- Publish a statewide annual economic analysis report for the governor, Workforce Development Council (WDC), and Local Workforce Investment Boards (LWIBS).
- Conduct and publish other economic and labor market reports and products.

This report describes Hawaii's accomplishments during the July 2013 to June 2014 program year. The period of performance is from July 1, 2013 to September 30, 2014. Actual and estimated expenditures are expected to have no significant variance. All of PY 2013 deliverables, supplemental reports, and consultations have been met within the allotted schedule.

Part A: Accomplishments

1) Workforce Information Database (WIDb)

R&S populated and maintained all core tables of the Workforce Information Database (WID) for the areas and time periods required in a timely manner, following the guidelines issued by the Analyst Resource Center (ARC). Core data tables populated include: Current Employment Statistics (CES), employment database, income, industry projections, industry, industry occupational (io) matrix, labor force, license authority, license, occupational projections, Occupational Employment Statistics (OES) wages, and population.

By June 2014, the database was also populated with items that went beyond the core requirements such as including more county and island data when available, providing additional years of data for the core tables, and populating other non-core tables. The following files contain MSA/County data: building, CES, commute, consumer price index (CPI), employment database, income, industry projections, industry, iomatrix, labor force, occupational projections, OES wages, population, program completers, programs, property values, sales, schools, supply, tax, and UI claims. Both CES and labor force also contain Island data. Non-core tables that were populated include: building, commute, CPI, license history, program completers, programs, property values, sales, schools, short term industry projections, short term occupational projections, supply, tax, and UI claims.

We also collected licensing information for 74 occupations, updated the required licensing files with 2013 data (licauth, license, lichist, licxocc, licxonet), and submitted the data files to the National Crosswalk Service Center for inclusion in America's Career InfoNet in May 2014.

Hawaii maintains Version 2.5 of the WI database and it is available online at *Hawaii Workforce Infonet* (HIWI) www.hiwi.org.

2) **Industry and Occupational Projections**

During PY 2013, employment projections were prepared for the 2013 to 2015 and 2012 to 2022 periods for the State. Staff completed short-term industry and occupational employment projections based on 2013/Q3 for 2015/Q3 and long-term industry and occupational projections were developed with calendar year 2012 as the base year and 2022 as the projected year for the State. Both short- and long-term projections were developed according to the methodology, software tools, and guidelines developed by the Projections Consortium and the Projections Managing Partnership (PC & PMP). The short-term employment projections were submitted to the PC & PMP for review in February 2014 and the long-term projections in June 2014.

Prior to the above activities, staff also published revised state and county projections estimates for 2010-2020 by September 30, 2013, including the updated numbers in the Workforce Information Database (WIDb) and made available to the public through our HIWI website. Hard copies of the revised state and new county projections estimates were distributed to State legislators in the fall of 2013. The 2013-2015 short-term projection estimates and report, *Employment Forecasts for the Short-term Future*, were placed on our HIWI website at the end of February 2014 (<https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Short-TermForecasts-2013-2015.pdf>), and the long-term projection figures appeared on HIWI at the end of June 2014. *Employment Projections for Industries and Occupations, 2012-2022* were published on HIWI at the end of September 2014 (<https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Long-TermProjections-2012-2022-State.pdf>).

Staff also produced a revised listing of the top 25 occupations in the state with the most openings based on our 2010-2020 occupational forecasts titled *Hawaii's Hot 25 (revised) Demand Occupations* (https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Hot25DemandOccs_2010-2020-State-rev.pdf) and new top 20 occupational lists for the four counties. These listings were grouped by educational and training levels and were handed out at the Leeward Community College job fair and at several presentations that included job and educational counselors; state, city, and county P-20 Partnerships for Education advocates, and students. They were made available on our HIWI website for general distribution, too.

Staff participated in 27 webinars during the program year of which six were sponsored by the Projections Managing Partnership, regarding various aspects of employment projections. Seven webinars were for the Census Bureau's LED program and one was held by the Bureau of Labor Statistics. The Association of Public Data Users held four webinars, The Council of Community Economic Research hosted another four, and Geographic Solutions conducted three webinars about the labor market information website. The remainder of the webinars attended was related to healthcare and aging.

3) Annual Economic Analysis and Other Reports

R&S compiled and produced an economic analysis report titled *Hawaii Labor Market Dynamics* for 2013 that provided data and information on the state and local labor markets for individuals who develop workforce policies and make workforce investment decisions. The report highlighted job trends over various time periods, noting the effects of the recent economic downturn and its impact on the state's labor market. It also compared forecasted job openings between the third quarters of 2013 and 2015 and between 2012 and 2022 for the state. Information on size of the workforce; unemployment rates by geographic areas; long-term job openings by education and training required; industry and occupation analyses; and wages were included in addition to Local Employment Dynamics (LED) data.

The Hawaii Labor Market Dynamics report was made available on the HIWI website at the end of September 2014
(<https://www.hiwi.org/admin/gsipub/htmlarea/uploads/HawaiiLaborMarketDynamics2014.pdf>.)

4) Customer Consultations

Throughout PY 2013, the R&S Office continued to consult with its customers through emails, phone calls, and in-person exchanges about the usefulness of products developed and services provided by our office. The "in-person" encounters involved attending meetings and participating in technical workgroups to inform and ensure that future development of workforce information aimed to satisfy our customers' needs.

Staff was consulted by a Hawaii Business magazine reporter inquiring about the top five growing and declining occupations in the state, and we provided her occupation tables for 2010-2020 and 2012-2014. The data later appeared in a multiple-page spread in the aforementioned magazine.

Another customer, who was the sales manager for a national restaurant chain, desired an occupational mix by industry for Maui and Hawaii Islands, and we were able to provide her with most of the occupations that she wanted.

Staff met with an economic consultant and research analyst on projects that may be developed on the island of Lanai by its majority owner. They wanted as much information about the tiny island, regarding industry, occupations, and wages of the workforce. We were able to retrieve Census OnTheMap data since Lanai is a census designated place and shared some Estimates Delivery System information. The consultant has been very pleased with the information our office has provided in the past and has offered to work together in the future.

Staff also met with another consultant that was creating a dashboard on the state government's website, ehawaii.gov. It was decided that since our projections data changed on an annual basis, it wasn't dynamic enough to be displayed as part of a dashboard, but our job counts and unemployment rates would be part of it.

Staff presented and consulted with a group of educators and counselors, identifying the state's growth industries and occupations, job openings, and skill demands of employers. They fielded questions about the differences in total job numbers from various agencies and wanted to know whether our data supported their public campaign to encourage students to obtain a college education.

5) Activities Undertaken To Meet Customers Needs

R&S continued to provide information and ongoing support to the Hawaii Workforce Development Council (WDC), Workforce Investment Boards (WIBs), and One-Stop Centers in PY 2013. Staff attended WIB and WDC meetings to be briefed on updates and for guidance on workforce development policies, priorities, and issues. On June 13, 2014, our annual LMI Plan was discussed with Council members to ensure that our LMI data supported the statewide workforce development initiatives.

We worked closely with the Workforce Development Division such as developing numbers on areas of substantial unemployment in the state and providing a summary for their WIA Annual Performance Report. The Workforce Development Division has shared our brochures and flyers on HIWI and Hot Jobs at numerous job fairs as well as used our workforce data for grant supporting purposes.

The HIWI website continued providing local LMI data and support to the local WIBs. The WID drives HIWI, and most of the data is collected at the county level, which replicates our LWIB geography. LWIBs have access to the most current labor market information available. HIWI has pages for each county for easy one-stop access to data focused around geographical areas. The Local Employment Dynamics (LED) information is linked through HIWI, providing the capability to continually offer county labor data. The LED **OnTheMap** tool on our website supplies detailed maps and reports of where people live and where they work for county and rural areas.

Staff also presented county labor market trends and employment opportunities to Oahu WorkLinks, a one-stop center on May 15, 2013.

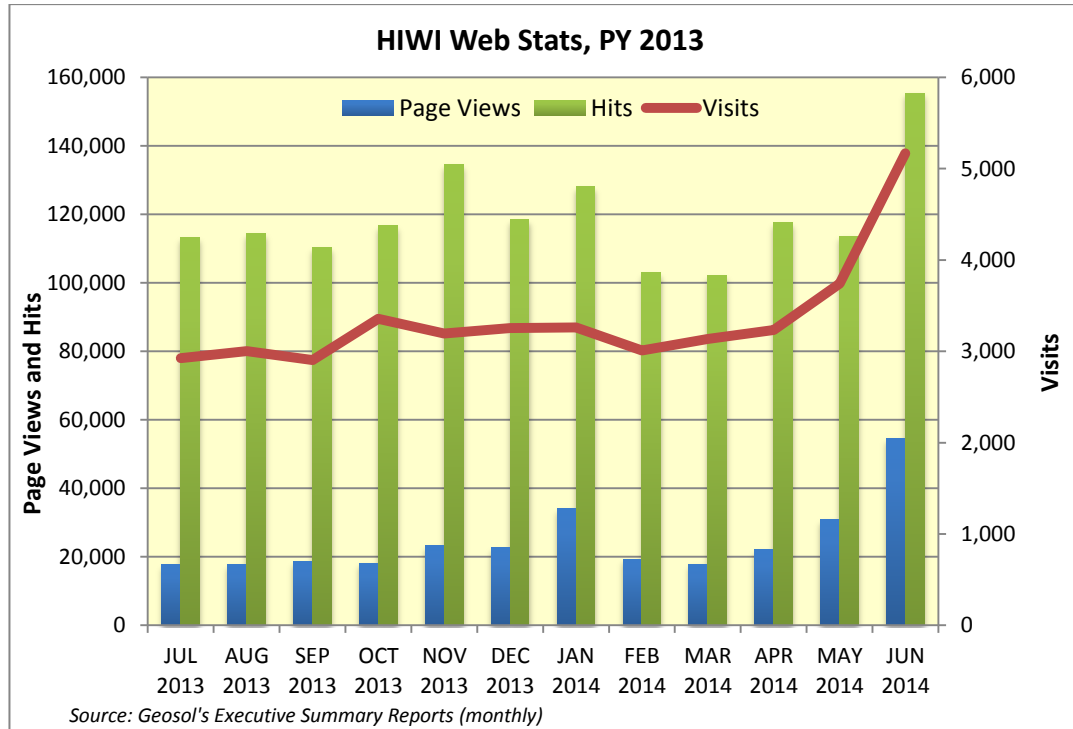
R&S staff shared our state's health workforce data collection at a health workforce planning workshop in the spring of 2014. The workshop was sponsored by the National Governors Association to assess the need for establishing a health data center in the state.

We had several requests by legislators and those interested in special groups for demographics on people with disabilities, long-term unemployed, and Filipinos in the workforce. The only source for most of this data was searching the Census website and even then, it was limited to certain ages and sparse occupational breakouts. Biotechnology jobs data and the effects of increasing the guaranteed monthly compensation to exempt individuals from Hawaii's wage and hour laws were also of interest to a couple of state senators.

Often times R&S was asked to provide labor market data to various people in the community such as reporters, economic consultants, job counselors, WIB members, job seekers, and students. Topics ranged from: the fastest growing industries and occupations, numbers of discouraged workers, to employment in specific industries and occupational skills employers wanted. If the data was readily available, we supplied it through phone calls and emails. A number of times, we had to do research, mostly through the Census Bureau and searching other websites for special studies that might have the data.

6) New Tools and Resources

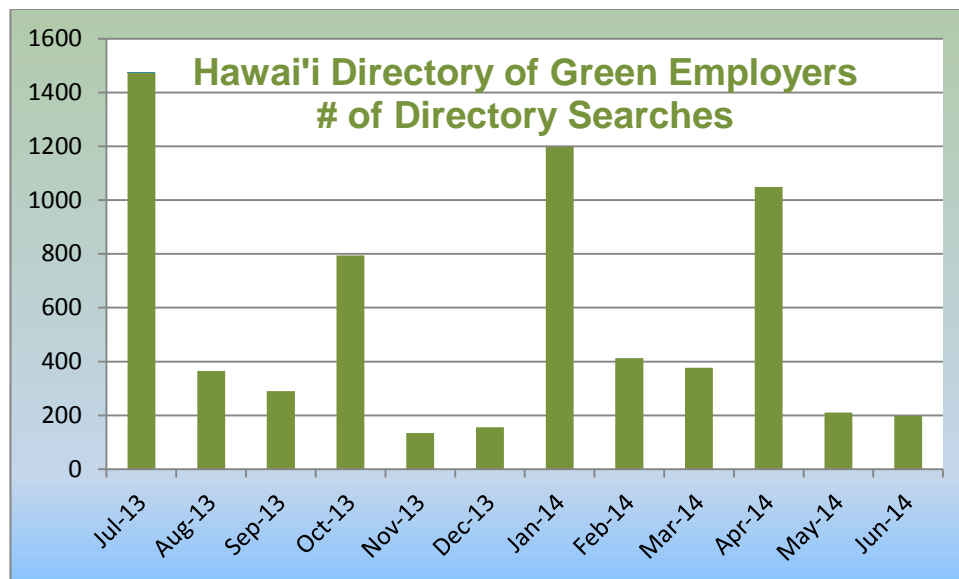
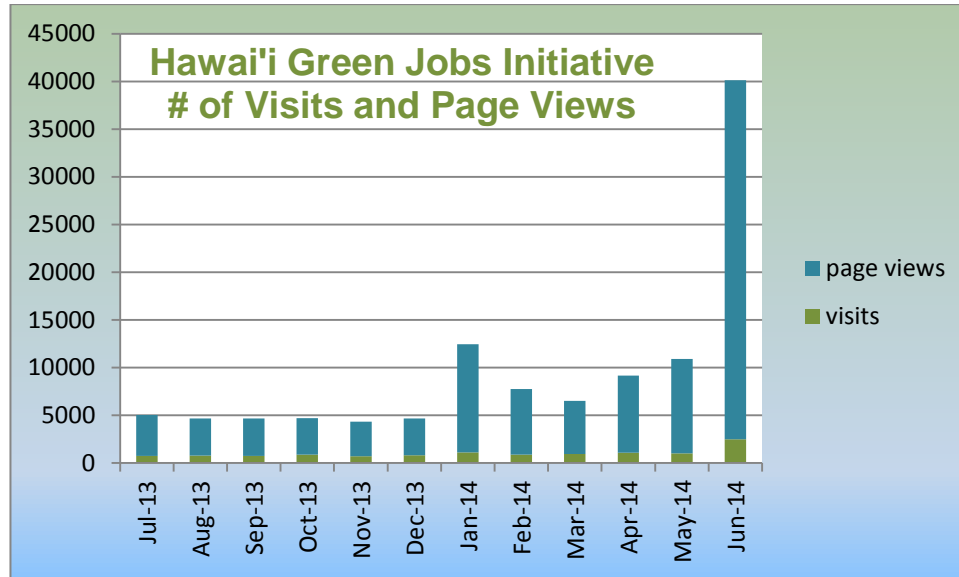
As mentioned earlier, labor market information produced by R&S in PY 2013 is available on our HIWI website (www.hiwi.org) for dissemination to our customers, and in particular to facilitate use by our workforce investment partners. E-mail alerts to site subscribers and through Twitter announced new products, information, and reports available on the website. We added a Latest Reports section on the home page to highlight new or updated topics. LMI postings on the HIWI website consisted of the monthly news releases on local unemployment rates and non-farm employment counts in the Press Release and Quick Data Links sections, while employment projections for the state, occupational employment and wages for the state and Honolulu MSA, annual labor force updates for Affirmative Action programs, and Quarterly Census of Employment and Wages (QCEW), industry employment and pay, and green jobs and employers were also accessible in the Quick Data Links area. Additionally, Local Employment Dynamics (LED) tools were linked to our website, including the Census OnTheMap tools that provide detailed maps and reports showing where people work and where they live for county and rural areas.



Web statistics reported about 40,200 visits for PY 2013. During these sessions, more than 297,200 pages were viewed. The most frequented pages viewed were Occupational Employment Statistics (2,152), Projections (1,721), Local Area Unemployment Statistics (1,492), Current Employment Statistics (1,122), and Quarterly Census of Employment and Wages (810).

Updates for the Workforce Information Database (WID) Version 2.5 were accessible through our Internet delivery system, HIWI. Staff also continued to provide WID information to HireNetHawaii, the online job-matching system sponsored by our department at www.hirenetHawaii.com and maintains a link to that website on HIWI.

R&S maintained the online Hawaii Directory of Green Employers so that establishments could update their contact and occupational employment information. The information from this site provides the only current source for identifying green employers and monitoring the growth of green jobs statewide. R&S contracts with Geographic Solutions, Inc. to host and maintain our Internet delivery system of LMI products and services as well as the green portal, and with the Hawaii Information Consortium for the on-line business directory of green employers. The green portal had over 12,170 visits during PY2013 which led to 102,785 page views. The Hawaii Directory of Green Employers had over 6,650 individual sessions resulting in 14,580 page views during the same period.



Throughout the program year, staff participated in three GeoSol webinars. Staff also attended GeoSol’s annual conference in Clearwater Beach, Florida in May 2014, networking and discussing website development issues with our cohorts from other states. Staff worked with GeoSol to develop a data dashboard for our HIWI home page in order to provide instant access to the most popular data sets available on our website and it debuted in November 2013. Additionally, staff met with other software developers that are creating a dashboard for our state government website, providing them knowledge about the datasets that our office produces and to test whether it is feasible to link up to the larger state government database.

7) Efforts to Create and Support Partnerships and Collaborations

R&S maintained a viable working relationship with the Workforce Development Council (WDC) and Workforce Investment Boards (WIBs) by responding to requests for data and investigating issues that Hawaii's workforce investment system was interested in studying and pursuing for further action. For example, we maintained a close working relationship with WDC, particularly since the council has lost its entire support staff except for one. We updated and reproduced labor market material for distribution such as our Hot Jobs brochures. Our attendance at council meetings and frequent informal contacts with the WDC office, especially regarding work on green jobs, agriculture, information technology, and healthcare, and special grants provided direction that allowed us to work collaboratively on developing appropriate products to inform state and local customers about the current state of our workforce situation. Staff produced customized files for users of our data, providing industry and occupational employment projections, occupational wages by industries, and labor force information for affirmative action programs.

R&S continues to support the Governor's Health initiative by attending a workshop hosted by the National Governors' Association exploring employment and training elements that need incorporation in a state health center. Additionally, we have participated in the Governor's Open Data Initiative (ODI) project by uploading unemployment and job count datasets and are exploring processes to be used in the creation and updating of electronic dashboards for the Governor and DLIR.

8) Activities to Leverage LMI-WI funding

The P-20 Initiative wanted R&S data on the number of jobs that required a college education. Legislators were interested in the number of biotechnology jobs and other issues that would support bills winding their way through the legislative session, such as identifying high growth industries and workforce needs so that training programs could be developed. Others sought out a "living wage calculation" which we did not have, but found studies that did attempt to develop a formula.

R&S completed a Predictive Modeling Report in August 2013 for the University of Hawaii's Community Colleges C3T Project. The Community Colleges had approached R&S and funded a 0.5 FTE position to develop predictive models for three industries: Agriculture, Healthcare, and Energy. LMI staff provided input to the model by using the BLS-approved process and Projections Suite software involved in developing long and short-term industry and occupational projections. Staff supplied historical data, LED firm age data, employment and state variables, and occupational staffing patterns. A repository of reference material was also developed, comparisons of existing projections to actual data were made, and variables identified. Discussions with various industry and economic experts were conducted and regression models were tested and built.

R&S staff also participated in several work groups that met on a regular basis throughout the year including:

- All-Grantee meetings: Led by the DLIR Director, the meetings provided updates on the various ETA-funded projects in the State including TAACCCT and WIA programs and provide an opportunity for R&S to also share and disseminate publications and reports with the grantee entities.
- Joint Workforce Group Meetings: Also facilitated by the DLIR Director, the joint workforce group meetings were attended by representatives from organizations concerned with workforce initiatives. Representatives included staff from Hawaii's congressional delegation, the Governor's Office, and various federal and non-profit agencies.
- Economic Forecasting Work Group: This group was convened by the Legislature. The chairs of the House Labor and Finance committees felt that there was a need to facilitate data sharing and use of resources that would improve the State's capacity to project revenues for budget planning purposes. Members of this work group included legislators, economists from the public and private sectors, workforce development administrators, Hawaii Tourism Authority, University of Hawaii, Department of Tax, and the Department of Business Development. R&S was identified as a key provider of projections and other labor market data. These meetings brought to light program areas in R&S that may need additional resources.

We continued to have meetings with the Hawaii Tourism Authority to explore the resurrection of a visitor-industry targeted web site that would provide information about careers and job opportunities for their industry.

R&S continues to support the development of longitudinal data systems. R&S is developing a Workforce Longitudinal Data System (WorLDS) funded by a Workforce Data Quality Initiative (WDQI) grant. The WorLDS staff meet regularly with the developers of a Student Longitudinal Data System, aka dxp or Data eXchange Partnership, administered by the University of Hawaii's P-20 Initiative. It is hoped that these two systems will become a federated system in the near future. Joint informational sessions for the Legislature are being planned.

R&S also participated in a Multi-State Longitudinal Data Exchange project administered by the Western Interstate Commission for Higher Education (WICHE). This project looked at where cohorts of graduates from the DOE and University of Hawaii ended up in the workforce. Four states – Hawaii, Washington, Oregon, and Idaho – participated in this demonstration project. All states were able to find more of their graduates who may have re-located to another state by participating in this project.

9) Recommendations to ETA for Changes and Improvements to WIGS requirements

As the state slowly emerges from the recession, the R&S office needs ETA's continued support for more labor market information tools to produce quality workforce intelligence so that people will know where they can receive appropriate training to acquire the skills necessary for future employment. The projects listed below are critical to our delivery of quality labor market and workforce information for our customers and partners. These tools include:

- *Hawaii Workforce Infonet* (HIWI), which is the primary delivery system of LMI, contains the latest updates of the WID database online. The WI system continually needs upgrading as newer technologies evolve for improved information processing and delivery. Additional resources will be necessary to afford the upgrades to the current Internet delivery system. Funding cuts have previously eliminated real-time job postings data and further cuts may cause us to sacrifice other elements.
- Hawaii Green Jobs Portal needs funding to maintain this vehicle of displaying green jobs data that had been previously collected through a Green Jobs survey back in 2010. Additionally, since the Occupational Employment Statistics survey never provided green jobs information, the Hawaii Directory of Green Employers will require funding for maintenance, allowing employers to update their contact, employment, and occupational information and may be the only source to maintain currency of green workforce data.
- Estimates Delivery System (EDS) needs funding and technical support from the Projections Management Partnership (PMP). EDS produces county level occupational wages and employment projections, which interests many of our customers, particularly the county WIBs. Industry staffing patterns are also produced from the EDS software and used in the MicroMatrix system to create occupational projections for the state and counties. Without the EDS, our state would not be able to produce vital county level data that would be meaningful for our local WIBs. In the past, some of the special requests that EDS has provided information on helped to determine: entry/experience wage levels based on various wage percentiles and new and emerging occupations of green, agricultural, health, and IT jobs.
- Each new version of Local Employment Dynamics (LED), a Census Bureau product in partnership with the states, provides more detailed analysis with regards to labor market areas. LED provides demographic and socio-economic information on the workforce for the state, counties, and smaller census areas that is always of interest to the non-MSA residents. Another helpful Census product is the OnTheMap feature that has useful tools within the LED program. With Census support, staff was able to attend the annual LED Partnership Workshop in Washington, D.C. in September 2014.
- R&S is also developing Hawaii's Workforce Longitudinal Data System (WorLDS), through a Workforce Data Quality Initiative grant. WorLDS will integrate data sets from within our department and other state, county, and non-

profit agencies' workforce development programs with data from the University of Hawaii and the state's Department of Education to track the supply and demand for skilled workers to determine where students and workers are headed in Hawaii's labor market. Staff will need additional funding to support and work closely with grant-funded staff in order to sustain the maintenance of the data after the grant ends in June 2015.

- Previous federal funding cuts have resulted in the discontinuation of real-time LMI, diminishing R&S capacity to keep current with the latest local job openings. The prohibitive costs of paying for membership in firms such as The Conference Board or Burning Glass prevents us from having access to this type of information, so more funds for these purposes would be helpful.