

V2.7 Released

Contributed by Dana Paczek ARC Structure Committee

In our never-ending quest to tweak and improve the Workforce Information Database structure, the Structure Committee is pleased to announce the release of WID version 2.7. This version is not a radical departure from v2.6.1, but does have some notable changes. The release date was set for May 1, 2017, so you will probably have this version in hand by the time you're reading this article.

The major change is to the projections table *iomatrix*. To accommodate the new Projections methodology relating to growth and replacements, the following fields were added: exits, annualexits, transfers, annualtransfers, change, annualchange, openings, and annualopenings. The old openings fields are still there for those States wanting to store previous projections in the same table.

Several of the other changes solve a problem that the Structure Committee often struggles with - how do we handle different versions of a coding system. Take, for example, SOC codes. By now, most states are using SOC 2010 codes, but have a good deal of historical data with SOC 2000 codes. Do we add a new table for SOC 2010? Do we call the *soccode* table the "current" version, and add a table for SOC 2000 (we tried this in v2.6)? What we decided to do is add a *codetype* field to *soccode*, so that both versions can be stored in this table. This approach was taken with CIP codes, Census occupation codes (*censcode*), and Census industry codes (*cenind*). Of course, these tables still feed into the admin table *indcodes* and *occcodes*. These changes did mean that the tables

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Rosenow Retires



Steve Rosenow with the National Crosswalk Service Center (Xwalkcenter.org) will be retiring on June 30, 2017.

Steve has been instrumental in shaping workforce information data.

Some of you may know and have worked with Steve. Others may not even know of him, but have benefited from the work he does.

In addition to running the Xwalk Center and providing services to the workforce information

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*Contributed by Skylar Spainhower,
State of Utah, Department of Technology Services*

Keeping You Up to date with the LEWIS Application

As most of you know, the LEWIS (Local Employment and Wage Information System) application was transitioned to the State of Utah in June of 2016. Thanks in large part to the efforts of Tom Price, with the State of North Carolina; the transition has been a success.

As part of the transition a new support website was created. The address for the new site is www.lewissupport.com. At this site you will find all of the necessary downloads to run the LEWIS application. Very soon the website will also include a forum where users will be able to ask questions and leave comments. This will be a valuable way for new users of the application to interact with advanced users, capitalizing on their knowledge of features and benefits of the system. It's also a way in which the State of Utah will be able to communicate with those who are registered users of the site.

The Utah staff has also been looking at how we can improve the LEWIS application. How can we make it more user friendly, while at the same time freeing the users from the burden of involving their IT departments with every download and update? With that objective in mind, Steve Brock, Stacey Joos and Skylar Spainhower met with the ARC in April 2017 to propose that LEWIS be re-written as a web application with a centralized database. We are pleased to announce that with the full support of the ARC, the Utah programming staff will begin the process of writing a new LEWIS web application.

The LEWIS rewrite will take approximately one year to complete and will look and feel very similar to the current application. Our goal is to make sure that those of you who have been through the LEWIS training will be able to log in and get to work without the need for additional training. The centralized database will be preloaded with the microdata and BLS publication data, so you will no longer need to import the data yourself. Once this new application is in place, all updates will be done on our end. You will no longer need your IT department to help you install those updates.

Don't worry - while Utah is working to create this new application, we will still be fully supporting the current desktop LEWIS system. Needed updates will still be completed, and all of your support questions will still be answered in a timely fashion.

Upcoming LEWIS Training

The great State of Texas will be hosting a LEWIS training class for us, in Austin, June 20 – 22, 2017. There are still a few open seats left, so if you or someone in your office needs this training, please email Skylar Spainhower (sspainhower@utah.gov) for more details. This class will be geared more toward those with little to no experience with the application.

Although it can be challenging to find rooms within the Federal per diem in Austin, we were able to reserve a block of rooms at the Hilton Garden Inn, downtown Austin, for a great price!

Data Visualization With Tableau

Contributed by Jason Crowley, Iowa Workforce Development

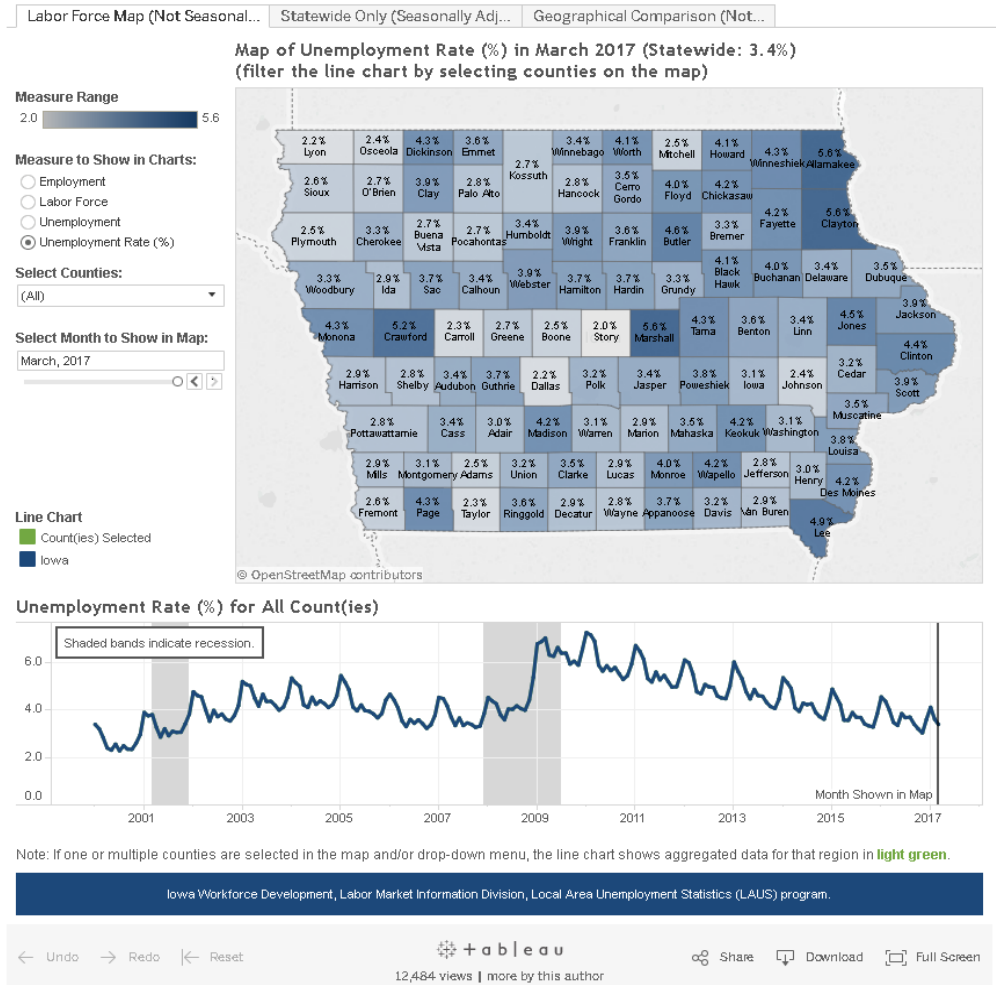
In January 2016, Iowa launched a re-design of our Labor Market Information (LMI) website (iowalmi.gov) centered around Tableau, a data visualization tool that many state LMI shops have started to utilize in some capacity. One of the primary goals for the new site was to improve our users' experience by allowing them to interact with data directly on the site rather than having to download spreadsheets or PDFs to find the information they need. After reviewing other options, our team decided that Tableau met this goal while also giving us a large amount of control over how data is displayed on our site.

Tableau is a useful tool for LMI websites because of the ability to publish interactive dashboards to the web through [Tableau Public](https://public.tableau.com). Those visualizations, which are

hosted on Tableau's servers, can then be embedded on a webpage. Iowa has purchased a few Tableau desktop licenses primarily for the ability to save local copies of our dashboards, but it is technically possible to do everything we've done with Tableau on our website at no cost.

Overall, we have been very happy with the functionality Tableau visualizations have added to our website. For example, on our [LAUS page](#), users can now select a group of counties and Tableau will calculate the unemployment rate for that custom area on-the-fly and display it over time next to the statewide rate. It does have its downsides, though. Depending on the amount of data you're trying to display at one time, load times can be slow. Tableau visualizations will also not show up if you print a web page that they are embedded on, so work-arounds are required which can be difficult to communicate to users. Data can also be difficult to download directly from Tableau, so we provide separate spreadsheet and CSV files. We have included a [Tableau Guide on our website](#) to attempt to help users with common tasks/issues like this.

If you have any questions about how Iowa LMI uses Tableau, feel free to contact jason.crowley@iwd.iowa.gov



Happy Trails. . .

Contributed by Steve Rosenow, National Crosswalk Service Center

I don't always tell everyone everything they need to know on most topics. That should come as no surprise to anyone reading this. So, in case you haven't heard, I will retire on June 30. This marks a good time for me to look back at all of the changes that have occurred during the nearly 35 years I've been doing this job, and to look ahead at what might be in store for all of us. Random thoughts:

Technology: No better place to start, it's changed as rapidly as anything. Anyone out there remember punch cards? Mainframes? OK, I never used punch cards while with the NCSC, but I did a lot of work on mainframes in the early days. When it came to creating files and distributing them on nine-track tapes, we probably averaged two or three per week. Mailing diskettes allowed us to greatly increase our file distribution. Then we started a dial-up bulletin board, and everyone was getting our files. It started out small with close to 1,500 files being downloaded. Incredible. Then came the Internet, and you know the rest: over 136,000 files downloaded during the year that ended June 30, 2016.

Feds: For those of you who missed out between the late 70s and 2000, you missed a period of significant innovation in the way Workforce/Labor Market Information was both used and consumed. I got started with the Iowa SOICC in about 1982, three years before the crosswalk center started. Even then, people realized the value in having a clearinghouse of files and other resources that would save the states from needing to create them from scratch. The files were mostly prototypes, with state modifications expected to meet their own situations. Imagine, producers and users of occupational and labor market information conferring with each other for the benefit of all. We're back to doing that again, including education and economic indicators data into the Workforce Information Database. Annual statewide economic analysis reports required by the Workforce Information Grants to States help more people understand the significance of the information you distribute. With all the changes over the years, the feds are still the kind of people we like to have in our corner.

Ageing: When I started working for the State of Iowa, my eldest child was a toddler. Now he's in his 40s with toddlers of his own. My work with the NCSC started largely by happenstance. The right opportunities presented themselves at the right times. Many/most of the people who worked with me here have grown up and gotten real, responsible jobs. Some are retiring or have already retired. As for me, I wouldn't change a thing. I've spent many, many years working for and with lots of good people, including you, dear reader. As a bonus, we've survived quite a number of years with uncertain funding prospects, and the security that comes from that made our family life more stable.

Coming up: When one door closes, others may open. I'm not planning on writing America's greatest novel, or much else. In the short term, you may see me hanging around or hear from me on a variety of topics. I'll be available one way or another to help with any rough spots as we find other ways to deliver the services you've come to expect from the NCSC. Don't worry, you're in good hands. As for me, my longer term plans include traveling, spending time with my granddaughters, tracing my roots, and smelling the roses. Thanks so much for keeping me honest through the years. And, for you ARC people, and you know who you are: thanks, and GO CUBS!

In the Spotlight



Jackie Summerton

Jackie works for the Wisconsin Department of Workforce Development. She is also a member of the ARC Consortium.

How long have you been involved in the world of LMI? I first started making Y2K changes to LMI programs on the mainframe in the Information Technology section. Later I became the Business Analyst for LMI. Now I'm the WID tamer in LMI. I know, I did this backwards compared to most people's progression.

What is your current job title? Not actually WID tamer; my title is IS Business Automation Specialist.

What is your educational background? I studied for a Master's degree at University of Wisconsin-Madison for English Linguistics. I taught English as a 2nd language for a number of years.

What is the most rewarding aspect of your current job? I'm kind of a data geek. These numbers are so useful for so many aspects of our economy. I like to be a part of this process. Also, I like the people I work with in Wisconsin and at the ARC meeting.

What is the most frustrating or challenging aspect of your current job? There's so much to keep us busy and there are so much to learn from the ARC website and on other state's LMI websites. There are just not enough hours in the day.

What is the most interesting or awe-inspiring place you have been to? I love to travel and have been lucky enough to visit many places in the world, but Venice was probably the most magical place I've ever been. The atmosphere just seems to shimmer. I went there when I was in college and I'm returning this summer to see if it's as amazing as I remember.

What are your interests outside of work? My work day is all right-brained work so in my free time I like to exercise my left-brain. Photography, card making, scrapbooking, PaintNites -- even just board games with friends and family.

Are you originally from Wisconsin? Yes, I grew up in the country about an hour north of Madison.

What is the strangest job you have ever had? Working on the farm. One year I worked full time with my Dad in the corn fields. Dad and I worked so hard to till, plant and till again on 100+ acres and then it flooded and all of that work was for nothing. I think that farmers, along with being really hard workers, are professional gamblers. That's too scary for me.

What about your family? You probably don't know any other Summertons. There are not many around. A pocket of Summertons live in my hometown and we're all related as well as most of the other residents in the village with a population of 400. That's a big reason I moved to the city.

My parents, sister and nieces and I are all very close and see each other at least weekly. I am not married but I have a partner.

Automation and TABLSRCE

Contributed by Amanda Rohrer, Minnesota Department of Economic Development

A number of aspects of the WID structure exist to facilitate automation and save time and labor, but their purpose can be confusing without explanation. One such table is TABLSRCE. TABLSRCE is listed as an Administrative table in the Data Dictionary and has foreign key references to the TABLLIST table. Together, the two tables create a comprehensive list of maintained WID tables, along with data sources, formats, contact people and update frequencies.

Though setting them up can be a project to start, if these tables are well-maintained they can be a lifesaver during staff transitions.

Structure

Because some programs rely on different data sources for state and national data (such as CES, where ACES downloads include only the state data) stfips is included in the table to allow the data sources to be tracked separately.

Contact information of various types can be kept in the supplier, contact, telephone, and teleext fields. These can be for internal sources – the program specialists within the state’s LMI shop – or for outside sources such as the National Crosswalk Service Center or the Census Bureau.

Filetype and info allow the inclusion of more specific description and instructions for obtaining the data, so if it’s pulled from a publicly available download file the details can be noted so the process can be repeated each month.

Finally, lastupdate and nextupdate are date fields that can tell you when data was last updated or should be updated again. These are the fields that need to be updated as a part of the regular data import process in order to be useful.

tablsrce			
Table describing how and from whom to obtain source data for the WID tables.			
Field Name	Type	Constraint	Description
1. stfips	char(2)	Primary Key 1	State FIPS Code.
2. tablename	varchar(32)	Primary Key 2	Name of Workforce Information table.
3. supplier	varchar(60)		Name of department or office.
4. contact	varchar(30)		Individual to contact.
5. telephone	char(10)		Telephone number.
6. teleext	varchar(10)		Telephone extension.
7. lastupdate	date		Date this source data was last updated.
8. nextupdate	date		Date this source data will be updated next.
9. filetype	varchar(10)		File format of source data.
10. info	varchar(MAX)		Narrative text describing any other relevant information regarding this source data.
Constraint Information			
1. Foreign Key (tablsrce.stfips) references (stfipstb.stfips)			
2. Foreign Key (tablsrce.tablename) references (tabllist.tablename)			

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Automation *continued from page 6*

Add an update to the lastupdate and nextupdate fields as the last step of any data update procedure. Lastupdate can be the current time.

```
update tablsrce
set lastupdate=CURRENT_TIMESTAMP
where tablename='industry'
```

How you'd maintain nextupdate may depend more on your internal procedures. If a schedule of releases is maintained somewhere, the nextupdate could be copied from that table. If your procedures allow manual input of variables, this could be user-input during the process. The simplest way to keep it updated however is to treat it as an approximate next update and set the field equal to the current date + the frequency of update. For LAUS and CES, that would be 30 days forward. For Census data, it may be 365.

```
update tablsrce
set nextupdate=CURRENT_TIMESTAMP+90
where tablename='industry'
```

Some DBAs like to have automatic jobs that run when conditions are met – these nextupdate values could be used to kick off alerts that new data may be available. Alternatively, they could be used to manage workflow more manually – at the start of the week or month it can be used to query upcoming updates. When there's staff turnover, a well-maintained table can help the new person plan ahead.

```
SELECT [stfips],[tablename],[supplier]
       ,[contact],[telephone],[teleext]
       ,[lastupdate],[nextupdate],[filetype]
       ,[info]
FROM [tablsrce]
where nextupdate<CURRENT_TIMESTAMP+30
```

Besides helping track current and future updates to ensure that the database remains up to date, including updates to TABLSRCE as the final step of a job can serve additional purposes. Sometimes the tables used for publication are different than the standard WID tables and once a data import is completed the new data has to be copied into another table. If these are updated in TABLSRCE separately it can serve as an alert to problems – if the publication table usually takes 4 minutes, but the update is 45 minutes later in the most recent load there may be issues, or if the job fails and only one portion is completed the updates to the lastupdate field may help determine at what step the job failed.

Rosenow *continued*

community since 1985, he has also served on the Analyst Resource Center Consortium on the Structure Committee. He has taught DBAs during ARC training, and willingly helps DBAs and others that are looking for data content and sources for data when they contact the NCSC.

Thank you Steve for all the work you have done over the years. You have made a difference, and you will be missed.

V 2.7 *continued*

cenlabor, *programs* and *stprogcd* needed to be changed as well.

Latitude and longitude fields were added to the *geog* table so that area data can be geocoded. We also added a civilian labor force participation rate (*clfprate*) field and an employed to population ratio field (*emppopratio*) to the *labforce* table.

Other changes include the addition of the core tables list to the WID document. We also decided to remove any deprecated tables from the list of core tables, so if the list seems shorter, that's because it is. Also, some field values were added as needed. Note that InfoGroup is likely to add more contact titles to their list, which we will add via addenda as they do.

The Structure Committee, as well as the larger ARC group, has been discussing licensing data, and ways to make it a bit easier for DBAs to update this data. We would welcome any suggestions from DBAs, although the fact that licensing is handled very differently by each State will make any attempt to standardize a challenge, to say the least.

In other news, we wish Steve Rosenow congratulations and best wishes in his retirement. We in the ARC have been honored to work with Steve, and have enjoyed his company and brand of dry humor. He will be missed.

ARC Newsletter

Editors: Barbara Ledvina and Steve Rosenow
If you have questions regarding the ARC *eNews* or would like to contribute information, please contact Barbara Ledvina at 515-242-5036 or via Email: Barbara.Ledvina@iowa.gov

FoxPro Files

July 1, 2017, the Analyst Resource Center will no longer produce files in the FoxPro format in support of the WID. Files will continue to be produced in the Access and delimited text formats.



Plans are underway to revamp the existing ARC website, and to incorporate the Xwalk Center website into the new site. Let us know if there is information that you would like to see on our new site: ncsc.arc@iowa.gov

The Workforce Information Database is a normalized, relational database structure developed for the storage and maintenance of labor market, economic, demographic and occupational information. The Analyst Resource Center is responsible for the Workforce Information Database structure development, update, and maintenance. Current members include Minnesota (lead), Connecticut, Florida, Iowa, Montana, Nevada, North Carolina, Oregon, South Carolina, Wisconsin, Texas, and ETA, along with the support from the National Crosswalk Service Center.