revenuedata.doi.gov

We work on open data at the U.S. Department of the Interior
Agenda

- Background
- Data Available
- Data Verification
- Let’s Find Data!
- Plea for Help
Who is ONRR?
The Office of Natural Resources Revenue collects, accounts for, and verifies natural resource and energy revenues due to states, Native Americans, and the U.S. Treasury.
Our team manages an open-source, open-data website to serve that mission and support public engagement in the process.

revenuedata.doi.gov
# Data Display team members

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
<th>Currently Filled By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Owner</td>
<td>Defines the product vision and makes sure what we’re working on carries out that vision.</td>
<td>Jennifer Malcolm</td>
</tr>
<tr>
<td>Developer</td>
<td>Writes the code, develops the technical strategy, and decides on technical tool sets.</td>
<td>Jeff Keene, Jerome Louis, Mojo Nicholas</td>
</tr>
<tr>
<td>Content Strategist</td>
<td>Develops strategy for and maintains all content on the site.</td>
<td>Ryan Johnson</td>
</tr>
<tr>
<td>Designer</td>
<td>Conducts user research to understand user needs and designs the site to meet those needs.</td>
<td>Shannon McHarg</td>
</tr>
<tr>
<td>Program Analyst</td>
<td>Makes sure we have current and accurate data and interfaces with other groups within ONRR.</td>
<td>Chris Mentasti, Maroya Faied, Lindsay Goldstein</td>
</tr>
</tbody>
</table>
The Natural Resources Revenue Data Portal (NRRD)

- In December 2012, planning work started to get the U.S. involved with the Extractive Industries Transparency Initiative (USEITI).
- In December 2015, the USEITI Annual Report was published as an Executive Summary and interactive data website.
- In 2017, the U.S. withdrew as an EITI Implementing Country and the EITI website was rebranded as the NRRD.
- Today and moving forward, ONRR continues to work to make our data publicly available.
Our Purpose

Problem statement

- The American people collectively own federal lands, waters, and the minerals beneath them. Transparency about how these resources are managed is crucial to public discourse and government accountability. However, data about public resources is underutilized because it often lacks contextual information or is presented in ways that aren’t readily accessible or understandable to users.

Our vision

- We are informing policy debates and raising public awareness by building the definitive source of timely and useful data about how the government manages federal energy and mineral resources, revenue, and disbursements.
Data in the Open

21st Century IDEA (Integrated Digital Experience Act)

● “is designed around user needs with data-driven analysis influencing management and development decisions, using qualitative and quantitative data to determine user goals, needs, and behaviors, and continually test the website, web-based form, web-based application, or digital service to ensure that user needs are addressed;”

OPEN (Open, Public, Electronic and Necessary) Government Data Act

● “Government data assets made available by an agency shall be published as machine-readable data...in an open format, and...under open licenses.”
Data in the Open

Github

GatsbyJS

Graphql

I’m a NRRD

 <>
Transition to Gatsby

Benefits

● Doesn’t require use of Macs to update the data
● Easier for non-developers to update content
● Allows the site to be built in a more modular way
● Better aligned with industry best practices
Available Data
Data Available

- **Production**
  - by month (Federal and Native American)
  - by year
    - Fiscal Year (Federal and Native American)
    - Calendar Year (Federal)

- **Revenue**
  - by month (Federal and Native American)
  - by year
    - Fiscal Year (Federal and Native American)
    - Calendar Year (Federal and Native American)
  - by company (Federal)

- **Disbursement**
  - by month (Federal and Native American)
  - by Fiscal year (Federal and Native American)
Data Verification
Data Verification

● Receive data internally from sister team
● Program Analyst verify data using
  ○ Data quality Checker: Python scripts created for comparing and checking for anomalies in the data files. (diff scripts, formatt checker, number checker)
  ○ Data update checklist: Checklist created when updating a new file on the website including checking against live site and ensuring all charts/tables are updated according to the new data.
Let’s find some data
Live website data demo
Plea for help
How we work

- Instead of planning our product top to bottom, we work in sprints. Basically, we break the product down into groups of tasks and complete those tasks in 2 week sprints.
How we work

- We then **test the functionality and effectiveness** of each sprint outcome.

- This approach allows us to be **more responsive to user needs** and **catch major issues before it’s too late**.
User-centered design process

Validate Built Product
- Usability testing
- Iterate design/build as needed or feed into future problem identification

Identify Problems
Sources of problems:
- Previous user research
- Calls/emails to Data Retrieval or Data Display
- FOIA requests
- Analytics

Formulate & Validate Hypotheses
- Understand the current state process and problems
- Put ourselves in the shoes of the user
- Talk about team's hunches
- Incorporate problems and hunches into hypotheses to test
- Exploratory research with users to identify real user needs

Build Solution
- Flesh out design details and build using agile
- Iterate as necessary

Select Final Solution
Balance:
- User needs
- Technical constraints
- Timeline
- Other constraints

Generate and Test Solutions
- Brainstorm possible solutions
- Communicate ideas to users to get feedback
- Synthesize and analyze feedback
- Review what we learned with the team
- Iterate as needed (to make sure we’re on the right path to a building the right thing)
User interviews

- We find people who use our site or fit the profile of people who use our site and ask them to participate in an interview.

- We talk with them about their real world processes and tasks and how they use our site to support their processes and any problems or pain points they have that we could potentially solve.
Help us make our website better

- Participate in a user interview
- Tell us what you need to do your work
- Be a part of the process and the solution
Connect
Blog

Why blog:

- It allows us to walk the walk of working in the open.
- It’s a form of outreach to let people know our site exists.

https://revenuedata.doi.gov/blog/
Blog

What we’ve blogged about

- How we rebuilt our open-data homepage part one: design
- How we rebuilt our open-data homepage part two: development
- Teaching Digital Skills: Learning Usability Testing by Peer Training
- Becoming a product manager
Contact Us

Email: nrrd@onrr.gov
Social: @doionrr
NRRD @onrr
Thank you! Questions?

nrrd@onrr.gov