

U.S. Amateur Radio — Who Are We?

Research to Inform ARDC's Grantmaking, Outreach, and Future Investment

Jim Idelson · K1IR

jim@k1ir.com

508.254.7500

August 2026 · Revised Proposal · 2026-08-20

Confidential proposal · For ARDC internal evaluation and discussion

ARDC Market Research Proposal · Jim Idelson · August 2026

1

SLIDE 1

U.S. Amateur Radio — Who Are We?

Thanks for taking the time to review this proposal. I thought it might be helpful to provide a little guidance as you go through it, so I've recorded this roughly twelve-minute walkthrough.

One quick note about the voice you're hearing. Editing and re-recording my own narration turned out to be quite inefficient, so I decided to experiment with a gen-AI solution and created a rough clone of my voice. The thinking, writing, and words are entirely mine — only the voice has been delegated to AI.

As I move through the proposal, I hope the additional context gives you a clearer sense of the thinking behind the approach — and why I'm excited about the opportunity.

This is personal for me. I'm now in my fourth year volunteering with ARDC. I've reviewed hundreds of proposals on the Grants Advisory Committee, and this year I'm also serving on the Grants Evaluation Team, taking a retrospective look at how well funded projects are actually meeting ARDC's goals.

So when I heard that the Board wanted a better factual understanding of the amateur-radio community, to provide better context for grantmaking, I recognized the importance of this work and I immediately wanted to get involved.

This combination of market research, data, strategy, and amateur-radio domain knowledge is very much in my wheelhouse.

The Assignment

ARDC has asked several excellent starting questions for evidence-based investment

Who are U.S. amateur radio operators?

Why ARDC needs it

To understand who amateur radio is reaching today, which populations may be underrepresented, and how grantmaking can be guided by evidence rather than assumptions.

Where do they get technical information?

Why ARDC needs it

To see where operators actually go for technical information, so ARDC and its grantees can communicate, educate, and support learning through the channels people use.

What got them involved in amateur radio?

Why ARDC needs it

To understand the influences, experiences, and learning paths that bring people into amateur radio, so ARDC can support pathways that work and identify gaps.

ARDC Market Research Proposal · Jim Idelson · August 2026

2

SLIDE 2

The Assignment

I've tried to stay very disciplined about the assignment.

As you see here, ARDC has asked three straightforward questions — who the community is, where operators get technical information, and what brought them into amateur radio.

Each has a clear use.

Demographics give ARDC a factual baseline, instead of assumptions, about who licensees really are. Information sources tell us where people actually learn and where ARDC and its grantees can reach them. And the pathway question tells us more about the people, experiences, and learning mechanisms that bring people into amateur radio.

The goal is to answer those three questions well.

The Opportunity is Bigger

Use ARDC's three questions to seed a durable, open research asset for U.S. amateur radio

Not a one-time survey; a foundational asset enabling ongoing, repeatable research.

KEY CHARACTERISTICS OF THE RESEARCH ASSET ARDC AND THE COMMUNITY NEED

Representative

Anchored in the FCC ULS population frame.

Multidimensional

Describes people, participation, pathways, behavior, and context.

Queryable

Supports broad profiles and narrow analytic slices.

Open & Reusable

Documented data and methods for community research.

Extensible & Repeatable

Add new measures and sources — and support longitudinal research over time.

Decision-Driven

Measures what ARDC needs to guide grantmaking and outreach.

ARDC Market Research Proposal · Jim Idelson · August 2026

3

SLIDE 3

The Opportunity is Bigger

But I think we can get considerably more value from the investment than three one-time answers.

Once ARDC has decided to invest in a representative research effort, there's a chance to create more than a one-time survey.

We can build a reusable research asset; an asset that is representative, multidimensional, queryable, open and reusable, and importantly, repeatable.

The three questions then become the first applications of that asset.

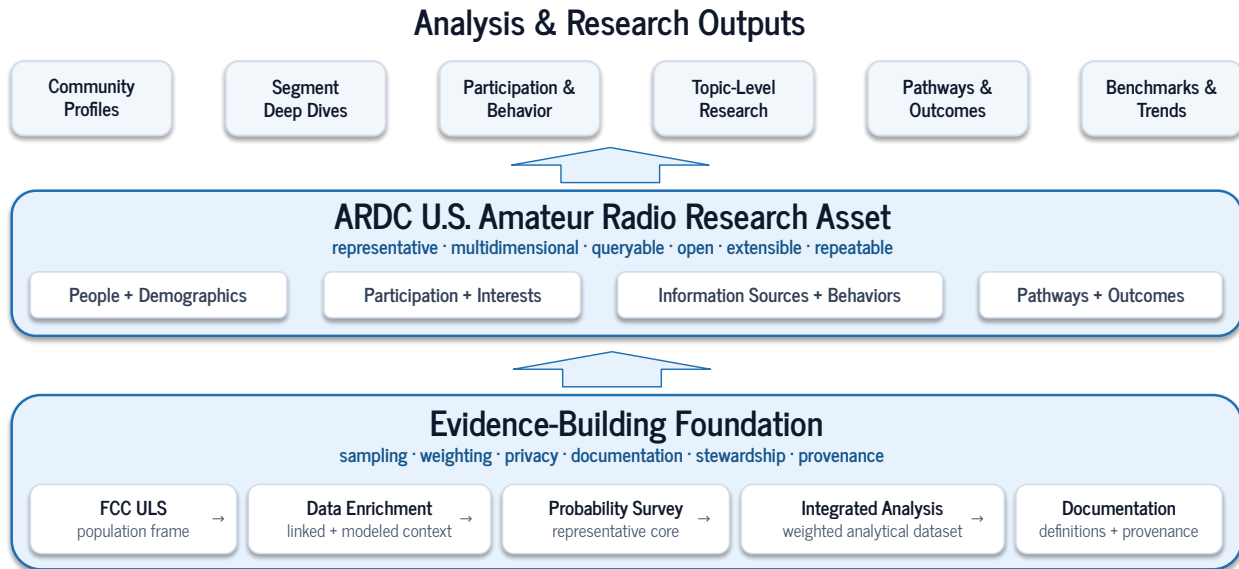
This is interesting because many of the things ARDC may want to understand later, about underserved populations, participation patterns, modes of technical experimentation, new entry paths, changes over time — depend on having an established base of evidence.

And repeatability gives us something particularly valuable. If we measure important things well now, ARDC can return in a year or two and begin seeing how the community is changing — and eventually how ARDC's investments may be affecting that landscape.

So we answer today's questions while building a foundation to answer many more.

Proposed Research Architecture

Start with a defensible data foundation, curate it and build reports and insight on top of it



ARDC Market Research Proposal · Jim Idelson · August 2026

4

SLIDE 4

Proposed Research Architecture

This slide shows the architecture behind that idea.

At the bottom is the evidence-building foundation. We start with FCC ULS, which gives us something unusually valuable in market research — a national population frame containing essentially everyone legally licensed in the United States.

We can enrich that dataset using information from other databases, and then use a probability survey to ask the things ULS and outside data cannot tell us.

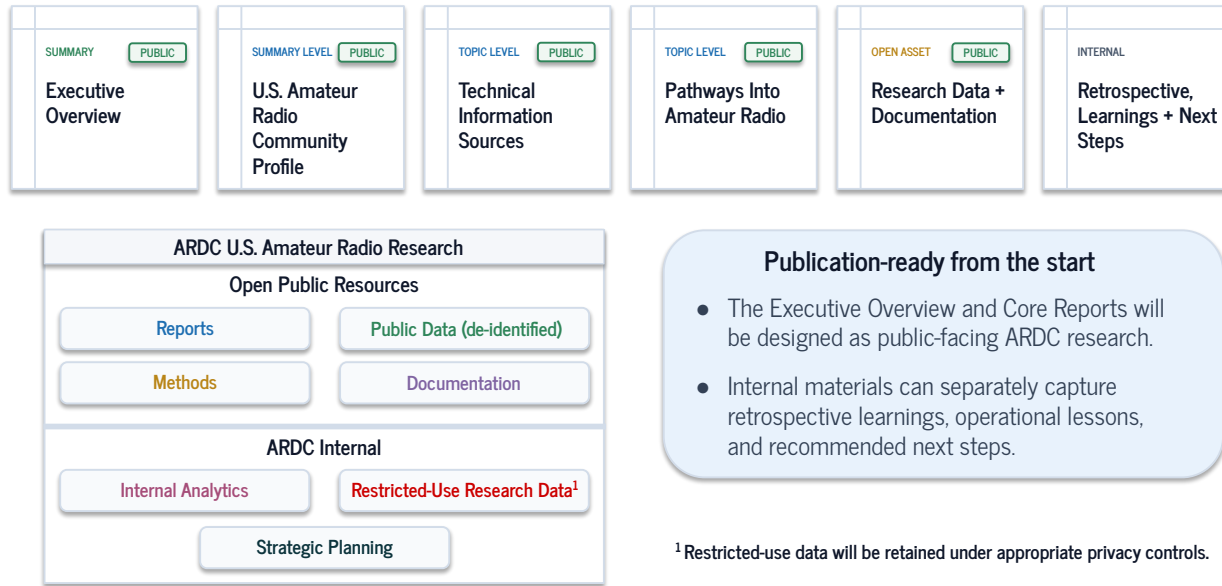
Those pieces get integrated and documented, creating the middle layer — the research asset itself.

And once that exists, you can see, at the top, the range of analysis it can support — community profiles, segment studies, participation and behavior, pathways, benchmarks, and questions we haven't even identified yet.

The important point is that the survey is one input. The durable product is the integrated evidence base.

What ARDC Gets from This Project

A public research package, an internal learning cycle, and a reusable data asset



ARDC Market Research Proposal · Jim Idelson · August 2026

5

SLIDE 5

What ARDC Gets from This Project

For this first project, the deliverables are very concrete.

Shown here across the top, are three substantive reports corresponding directly to ARDC's questions, plus an executive overview. These should look and feel like publishable ARDC research products, not internal consulting memos.

Behind those reports is the research dataset itself, with definitions and documentation so ARDC and others can understand and reuse it.

And we'll provide an internal retrospective — What did we learn? What should we measure again? What should we improve? and what new questions should we be asking?

One piece of terminology will help from here on. I've structured the proposal at three scope levels.

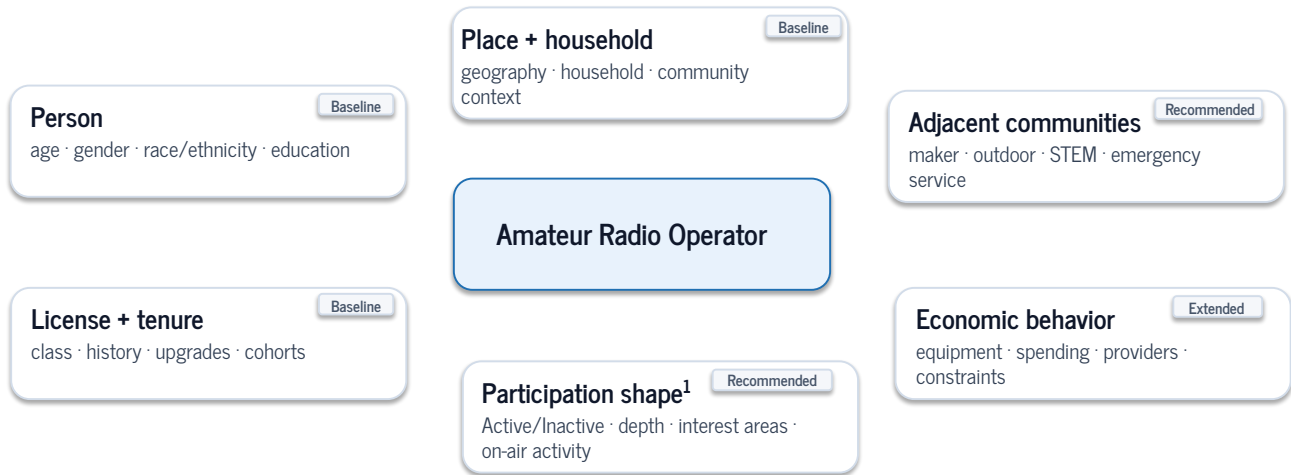
At Baseline is a rigorous answer to the assignment essentially as ARDC posed it.

The Recommended level adds a small number of dimensions that I believe substantially increase its usefulness for grantmaking and strategy.

And Extended takes the asset further into deeper segmentation, enrichment, subgroup resolution, and additional analytical opportunities.

ARDC Question 1 — What Is the Amateur Radio Community Profile?

The profile is not one attribute; it is a set of facets that together describe people and participation in amateur radio



¹ Recommended adds Active/Inactive, participation depth, interest areas, and technical/STEM-oriented segmentation.

ARDC Market Research Proposal · Jim Idelson · August 2026

6

SLIDE 6

ARDC Question 1 — What Is the Amateur Radio Community Profile?

The first question sounds simple — show us the demographics of U.S. hams — but, as you can see in this slide, an operator really needs to be described along several different dimensions.

There's the person, geography and household context, licensing history, connections to adjacent communities, participation, and potentially economic behavior.

Baseline can answer ARDC's demographic question very well.

But I think one additional dimension is especially important for grantmaking — Participation.

A license tells us someone passed an exam. It does not tell us whether amateur radio became a meaningful or sustained part of that person's life.

We don't currently have good statistical evidence about the size of that divide. But there are reasons to suspect substantial inactivity — perhaps particularly among Technician licensees. Some people become deeply involved. Others get licensed and effectively go no further.

Why does that matter?

Imagine two programs that each produce a hundred new licensees. One ultimately produces eighty people who remain active, learn, experiment, build things, and join communities. The other produces eighty people who essentially disappear.

Both can report one hundred licenses, but those are very different outcomes.

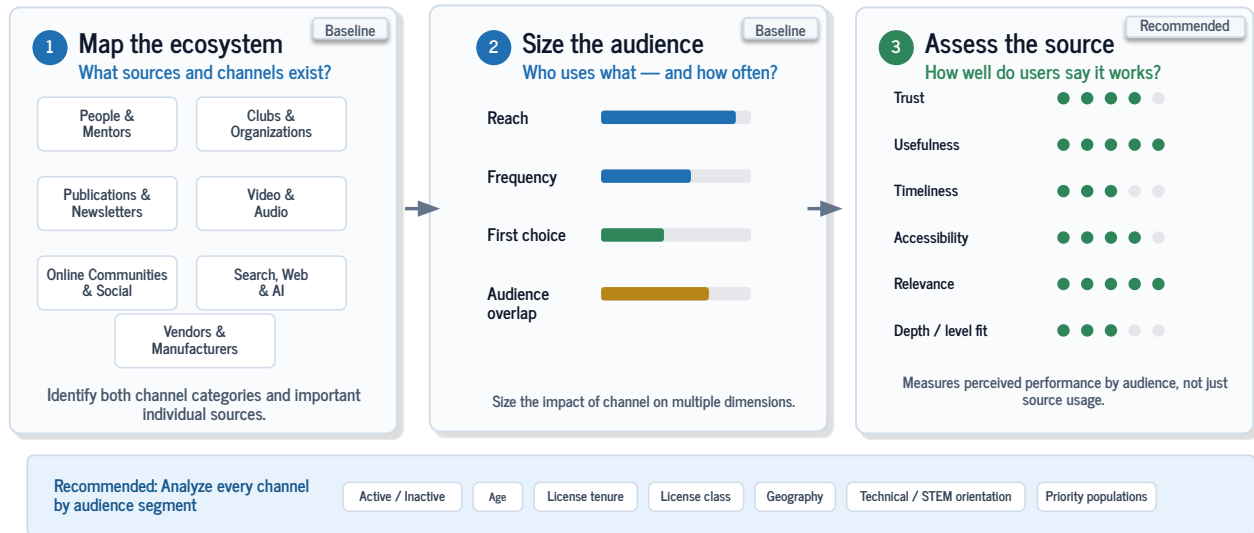
ARDC may want to invest more heavily in pathways associated with sustained participation and less heavily in pathways that repeatedly lead to a dead end.

That's why the recommended scope adds classification as Active versus Inactive and a richer participation profile.

We don't have to assume the answer. We need to measure it and see what the evidence says.

ARDC Question 2 — Where Do You Get Technical Information?

Map the information ecosystem, size its audiences, and understand which sources work best for which operators.



Result: not just a list of sources, but an information map ARDC can use for outreach, grantee guidance, and priority communities.

ARDC Market Research Proposal · Jim Idelson · August 2026

7

SLIDE 7

ARDC Question 2 — Where Do You Get Technical Information?

For technical information, I see the Baseline job as the first two columns on this slide: — map the ecosystem and size it.

We need useful channel categories, but we also need to identify the important actual sources within them.

Then we measure reach, frequency, first choice, and audience overlap.

That alone answers ARDC's stated question well.

Recommended adds the third column — assessment — where we ask survey participants to rank trust, usefulness, timeliness, relevance, accessibility, and appropriate depth of the information sources they use.

That lets us answer the more useful question shown across the bottom — which sources work for which audiences?

The information ecosystem of a newly licensed 25-year-old may look very different from that of someone active for forty-plus years.

And from the ARDC perspective, biggest may not necessarily mean best. Knowing what works for particular audiences can lead to better outreach and better guidance to grantees.

ARDC Question 3 — What Got You Involved in Amateur Radio?

Separate key entry path milestones — then compare which pathways are associated with sustained participation.

ENTRY PATHWAY STAGES

Baseline

1 Exposure

How was amateur radio first introduced?

- family/friend
- school/STEM
- emergency service
- media
- adjacent hobby
- career/tech

2 Motivation

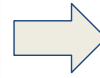
Why did it become worth pursuing?

- technical curiosity
- community service
- personal emergency preparedness
- outdoor activities
- competition

3 Learn + License

How did interest become a license?

- self-study
- online course
- club class
- mentor/Elmer



PARTICIPATION OUTCOMES

Recommended

Active / Inactive

Depth + type of participation

Technical learning + experimentation

Community involvement

On-air activity

Growth or disengagement

ARDC Market Research Proposal - Jim Idelson - August 2026

8

SLIDE 8

ARDC Question 3 — What Got You Involved in Amateur Radio?

The pathway question also benefits from separating things that be easily collapsed into a single bucket.

The three blue stages on the slide distinguish exposure, motivation, and learning and licensing.

Someone might first encounter amateur radio through a parent, become interested because of electronics, and then learn through an online course. Those are different parts of the pathway.

I think Baseline should distinguish them.

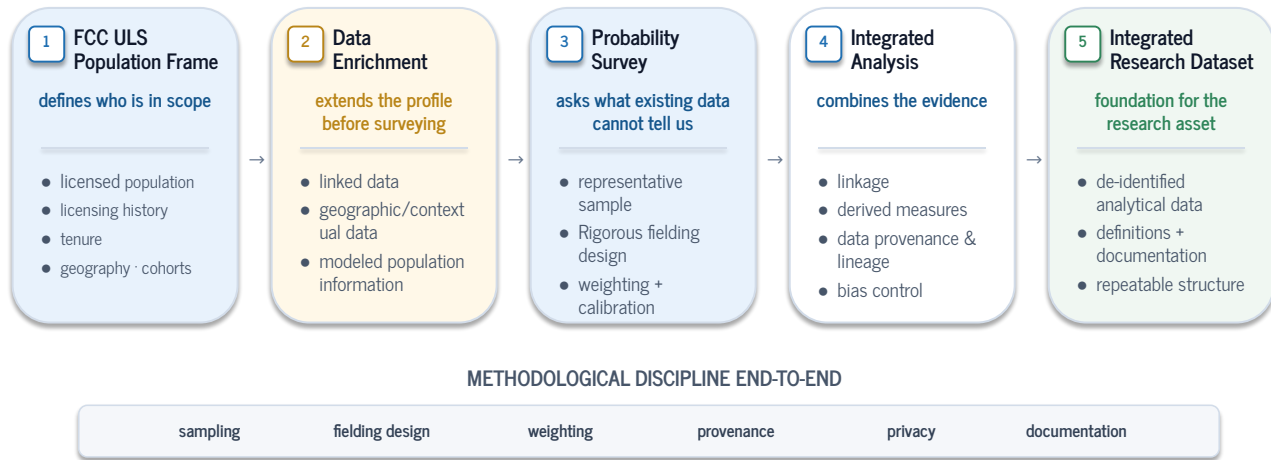
Recommended then adds the important green box on the right: participation outcomes.

Now we can go beyond asking which pathways produce licenses and ask which entry patterns are associated with sustained participation. Which show up more often among inactive operators? Where do people seem to fall out?

That gives ARDC a much more useful basis for evaluating investments in recruitment, education, mentoring, clubs, youth programs, and other on-ramps.

The Evidence-Building Foundation

Start with the licensed population, enrich what is already knowable, survey for what remains unknown.



ARDC Market Research Proposal · Jim Idelson · August 2026

9

SLIDE 9

The Evidence-Building Foundation

This is the mechanics that underpin the research.

The sequence starts with the ULS population frame and its core information, enrichment from what is already knowable, drawing a probability sample, integrating the evidence, and producing the documented research dataset.

The principle is simple — study the population first, and survey only what remains unknown.

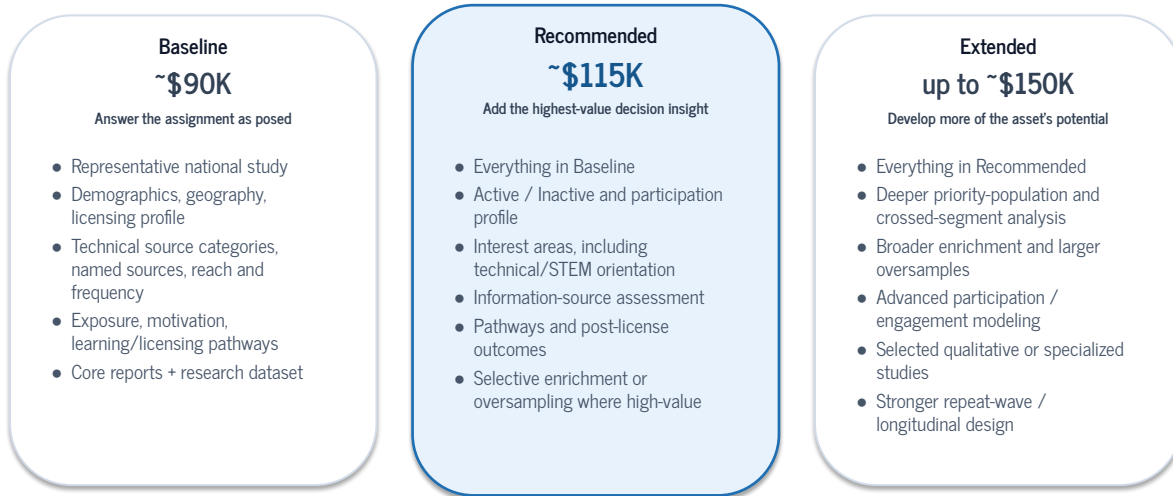
Surveying costs money and consumes respondent attention. If we can obtain something reliably elsewhere, we don't need to ask for it in a survey.

And as the data are integrated, we preserve provenance — we document what came from an authoritative dataset, what was self-reported, and what was contextual or estimated.

That's what makes the resulting asset understandable and reusable.

Scope and Investment Options

Three levels of investment, from a rigorous core to deeper insight.



Package estimates represent total project investment. Jim's professional services are fixed-fee/installments; other vendors can be contracted and paid directly by ARDC.

ARDC Market Research Proposal - Jim Idelson - August 2026

10

SLIDE 10

Scope and Investment Options

At this point, the three scope levels come together.

Baseline, at about ninety thousand dollars, is a real study — not a deliberately weakened option. It answers ARDC's assignment and delivers the core reports and dataset.

Recommended, at roughly ARDC's hundred-and-fifteen-thousand-dollar target, adds the things I think create the greatest increase in decision value.

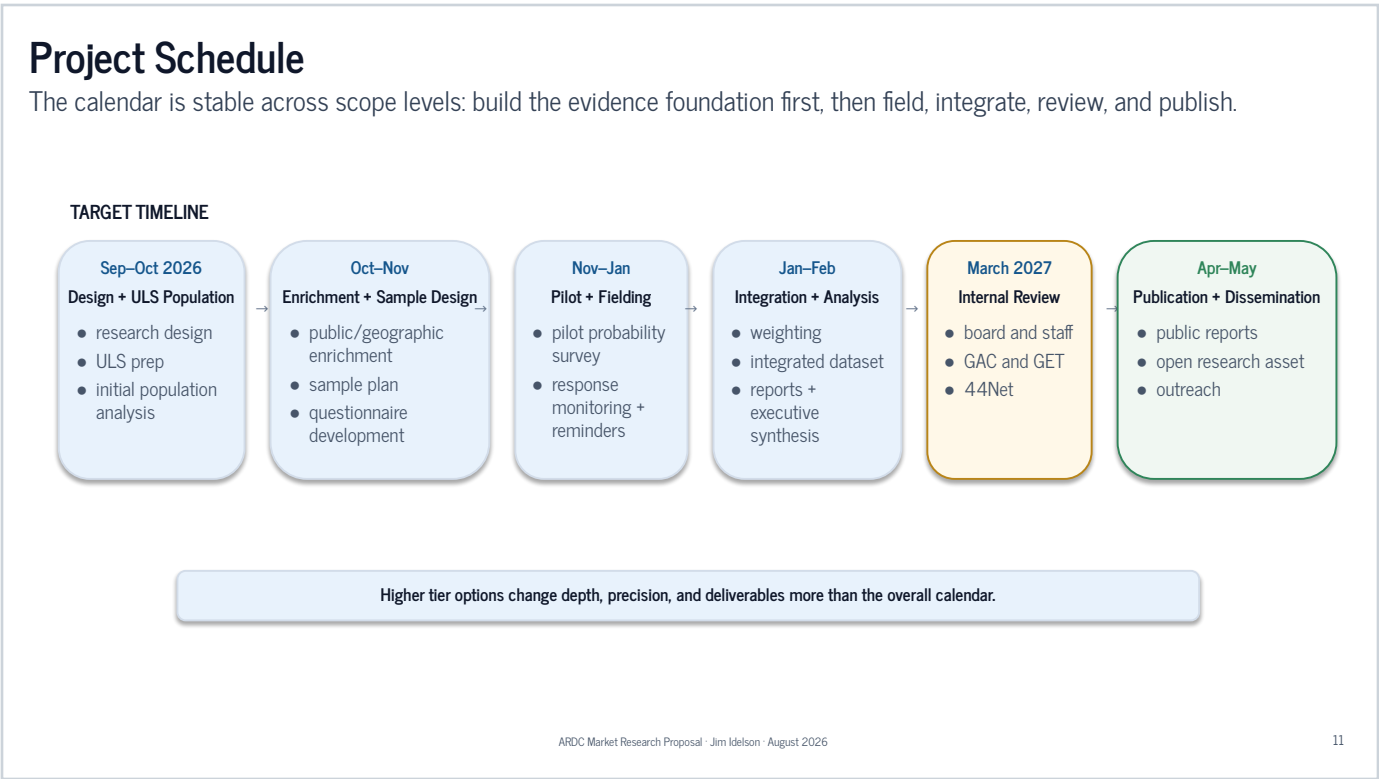
Most importantly, that means capturing Active versus Inactive status and the broader participation profile. It also adds technical and STEM-oriented segmentation, assessment of information sources rather than simply measuring their use, and linking entry pathways to participation outcomes.

Extended goes farther into deeper subgroup analysis, enrichment, oversampling, specialized work, and preparation for longitudinal research.

I'm not recommending that ARDC start there. Those are natural extensions once the first research asset exists.

Whichever scope we choose, there will also be execution choices — number of survey invitations, reminders, incentives, response modes, and commercial enrichment — that we can optimize during design.

My professional services would be fixed-price and paid in installments. Major outside vendors should contract directly with ARDC, with their work integrated into the overall project.



SLIDE 11

Project Schedule

The schedule works backward from a target March 2027 internal-review timeframe, which fits well with ARDC’s annual planning cycle.

As the slide shows, the first work is population analysis and enrichment, followed by sample design, questionnaire development, and testing.

Fielding runs through the end of the year and into January. Then we move into weighting for bias mitigation, analysis, the integrated dataset, and report development.

March is for internal review with the Board, staff, GAC, GET, the 44Net team, and other appropriate audiences.

April and May give us time for refinement, publication, and broader outreach.

Why Jim

One accountable lead combining research leadership, data expertise, amateur-radio knowledge, and strategic judgment.

Market Research + Data-Driven Strategy

Design research programs that answer investment-level decision questions, not merely investigation/exploration.

FCC ULS Experience

Years working with ULS structure, licensing history, and analytical possibilities.

Amateur Radio Domain Knowledge

Enough domain fluency to know which distinctions actually matter in the real community.

Data + Research Asset Thinking

Build reusable datasets, definitions, and reports that support future analysis and benchmarking.

ARDC Market Research Proposal - Jim Idelson - August 2026

12

SLIDE 12

Why Jim

Finally, why me?

The four boxes capture the combination I bring to the project.

There's market research and my professional experience in development of data-driven strategies. There's years of experience working with the FCC ULS — an old government system with plenty of complexity and quirks. There's deep amateur-radio domain knowledge. And there's the focus on building reusable datasets and research assets.

My ARDC experience adds another dimension. After four years working with ARDC on grant review and evaluation, I understand what the organization values, how it thinks about impact, and the kinds of evidence that are useful in funding decisions.

And we already know how to work together, which reduces both the learning curve and execution risk.

That combination is why I wanted to pursue this project.

I don't just find the research interesting. I can see very directly how better evidence can help improve the great work ARDC is already doing.

And I'd be genuinely excited to build this with you.

Five Methodological Questions to Get Right

Some of the important design issues behind a credible national study

1. What is the sampling strategy?
2. How will we identify and control important sources of bias?
3. What should we build internally, and where should we use outside specialists?
4. What should our stance be on privacy?
5. How do we include youth safely and responsibly?

13

SLIDE 13

Five Methodological Questions to Get Right

There are a number of questions related to methodology that I haven't tried to squeeze into the main deck. Let me touch briefly on five of them.

First, sampling.

One of the great advantages of this project is that we have the FCC ULS. We can define the licensed US population and draw a probability sample from it rather than relying on whoever happens to volunteer for an online survey.

The precise design will be determined after looking carefully at the population, but I expect some form of stratified probability sample — probably using characteristics such as geography, license class, and licensing tenure. We can also choose to selectively oversample populations where ARDC needs greater analytical precision.

Second is bias.

The largest risk in a study like this is probably not the initial sample — it is the shape of the response we get.

Different kinds of operators may respond at different rates. There can also be mode effects, recall bias in questions about how someone entered amateur radio, measurement effects caused by how we phrase questions, and coverage limitations depending on exactly how we define the population.

Our strategy is not to pretend those biases won't appear. It is to instead design for them, measure what we can, use weighting and calibration appropriately, test before broad deployment, monitor response patterns during fielding, and document any remaining uncertainty.

Third, what should we build internally, and where should we use outside specialists?

There are several reasonable ways to assemble the research capability. Some elements may be handled directly. Others — like survey platforms, printing and mailing, specialized fieldwork, enrichment, or independent methodological review — may be better sourced externally.

Five Methodological Questions to Get Right

Some of the important design issues behind a credible national study

1. What is the sampling strategy?
2. How will we identify and control important sources of bias?
3. What should we build internally, and where should we use outside specialists?
4. What should our stance be on privacy?
5. How do we include youth safely and responsibly?

13

SLIDE 13 / CONTINUED

Five Methodological Questions to Get Right

We can make those choices during design, balancing quality, cost, flexibility, and the operational burden imposed on ARDC. The goal is to build the simplest effective delivery model, and avoid creating unnecessary infrastructure for ARDC to maintain.

Fourth, privacy.

This project will need to comply with applicable U.S. privacy requirements and with ARDC's own privacy policies.

We'll potentially be working with personal information from three different sources: public FCC ULS records, enrichment from external sources, and information people provide directly through the survey.

The fact that ULS information is public does not mean we should treat it casually — particularly once it is linked with other data. We should minimize what we collect, separate identifying and contact information from survey responses, control access carefully, and be explicit about the permitted use and provenance of enrichment data.

And the public research asset is a separate question. Any dataset released for community use should be carefully de-identified, with aggregation or suppression where small groups or unusual combinations of characteristics could create a meaningful risk of re-identification.

Finally, what about youth?

ARDC has good reason to want to understand younger participants, but minors require additional care.

Before directly surveying minors, we need an explicit protocol for parental or guardian consent, youth assent, data minimization, secure handling, and appropriate limits on public reporting.

There may also be questions where household-level or parent-reported information is sufficient.

We will work through that design early in the process, treating youth separately, rather than simply another age bucket in an adult survey.