

THE STATISTICIAN AS PROJECT MANAGER: **STRATEGIES FOR SUCCESS & SERENITY**

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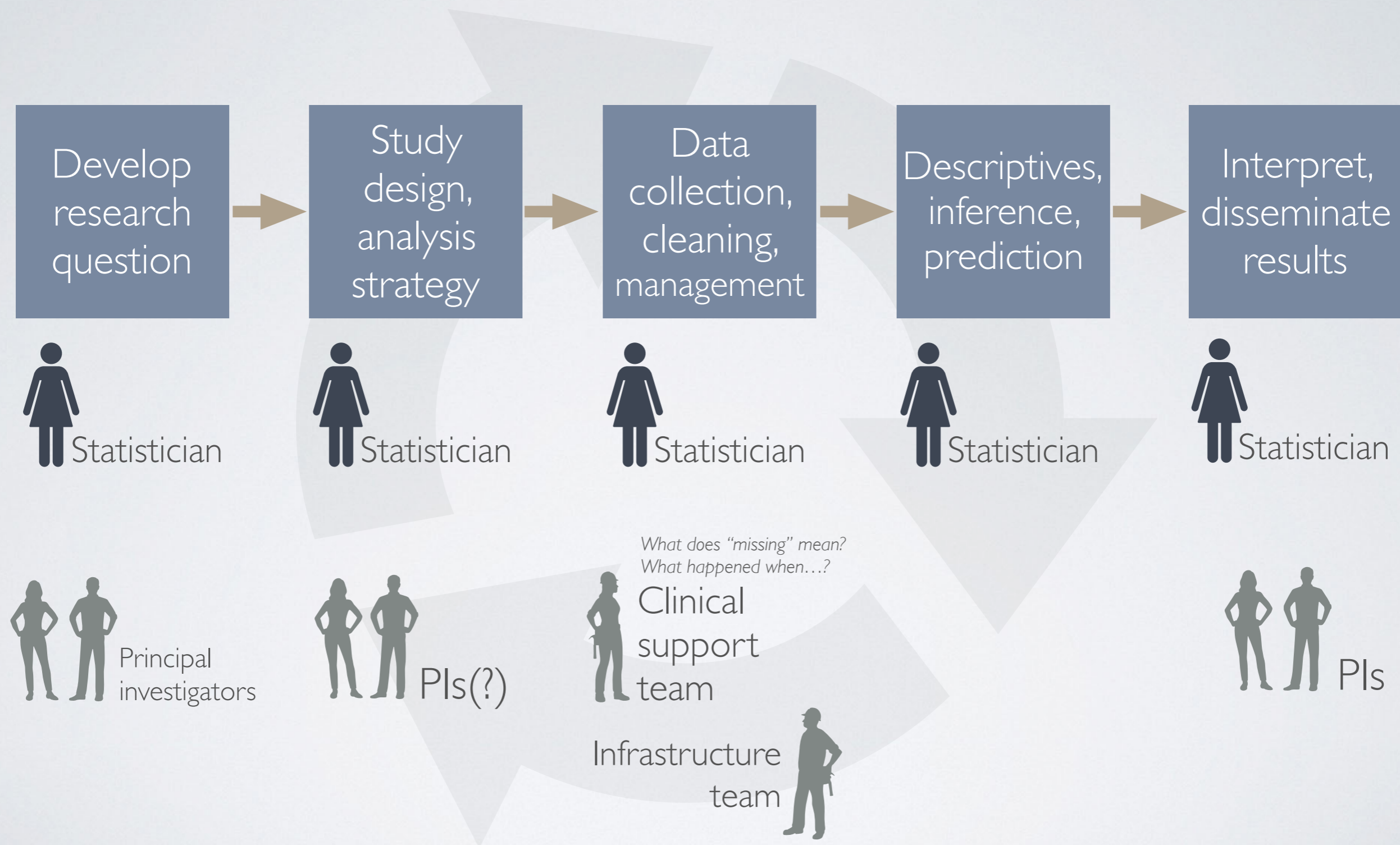
Department of Biostatistics

Critical Illness, Brain Dysfunction & Survivorship Center

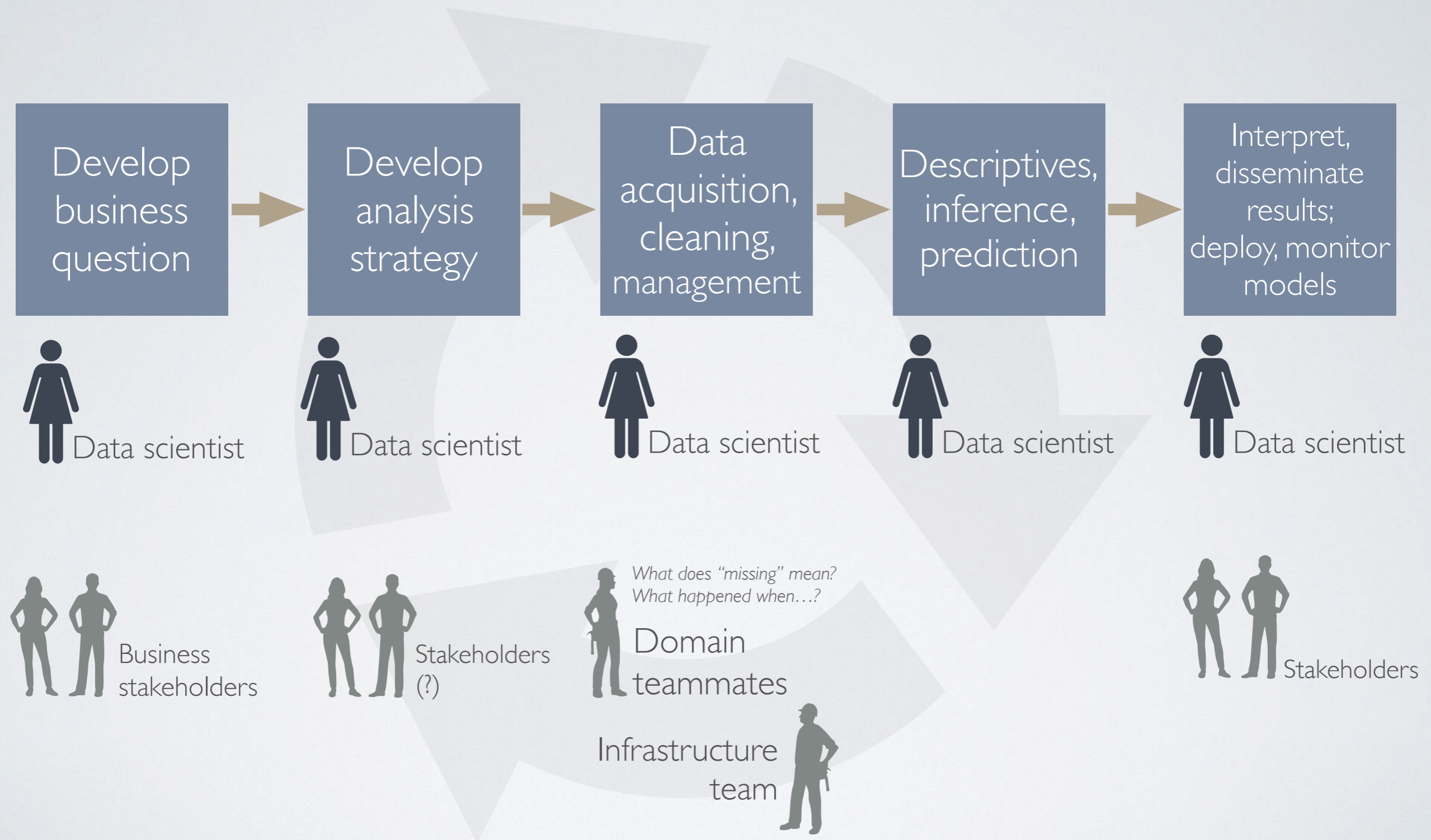
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LIFE OF AN ACADEMIC BIOSTATISTICIAN



LIFE OF A CORPORATE DATA SCIENTIST



when there is no project manager...

We
become a project manager



THIS HAS ADVANTAGES!

- Deeper project/domain knowledge
- Stronger relationships with teammates
- Better understanding of raw data
- These lead to stronger analysis, interpretation, communication
- Many of us enjoy it!

...AND DRAWBACKS



- Project management is a **lot** of work...
- ...which is not typically considered for career advancement
- Doing this well may actually hold us back, if it takes time from “promote-able” tasks & skills development

Link: Tanya Reilly's excellent talk on "glue work"

strategies for success

that have worked in my context 🙌

YMMV:

take what works, tweak what doesn't



COMMUNICATION



Regular team meetings

- Group discussion of goals, projects, timelines means everyone understands rationale
- Facilitates updates on roadblocks, successes
- Allows all team members to learn from each other

Public list of priorities

- Trello board, Slack channel...
- Gives stakeholders a clear picture of when their projects will be addressed
- Facilitates conversation about shifting priorities as needed

FOCUS 

KEEP THE MISSION IN MIND

What are your team's goals?



What projects/analyses will move you toward them?



Limit your to-do list to those projects!



DEALING WITH (SCOPE) CREEPS

Problem:

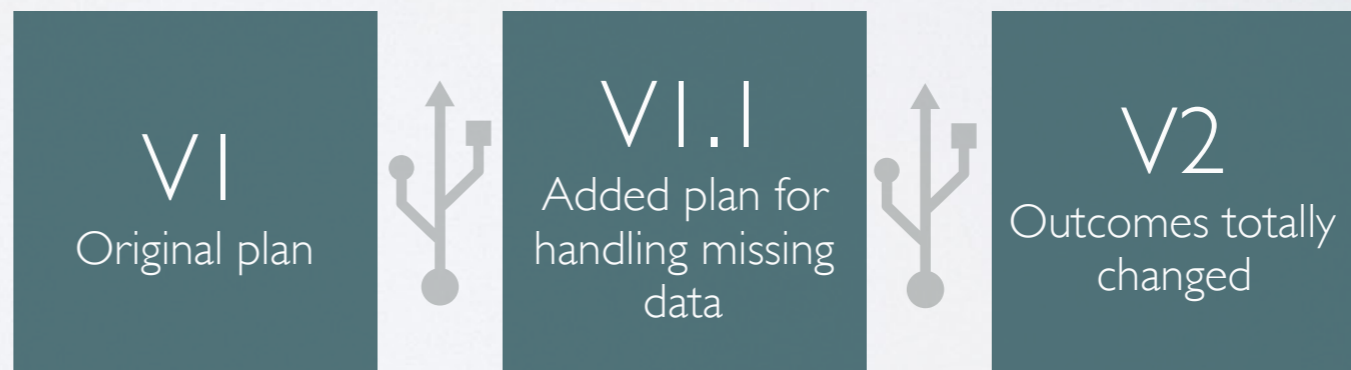
Scope creep (*n, my version*):

Project gets bigger and bigger without explicit intent 🤖

One solution:

Use your project/statistical analysis plan as a tool 🛠️

- Record original intent
- Document & version every change



- Additions/changes mean updating the version; this might be okay, but process forces you to think

FOCUS *vs* AD HOC PROJECTS



MONDAY

"I'm going to work on this big clinical trial! It's going to be awesome!"



FRIDAY

Spent my week on 18 revisions, bug fixes, "can you just tell me how many..."

Results:

1. Group is only inching toward goals, rather than making major progress
2. I am slowly being driven mad

FOCUS *vs* AD HOC PROJECTS

MAJOR


MAJOR

how many...
can you tell me...
reviews are back...
can you change...

Goal:

Make progress on major work that moves us toward primary mission, while remaining responsive to also-important ad hoc requests

Our specifics:

- **Two** weeks working on major project (eg, primary outcomes of clinical trial)
- **One** week on smaller needs (reviewer responses, bug fixes...)
- Repeat! 

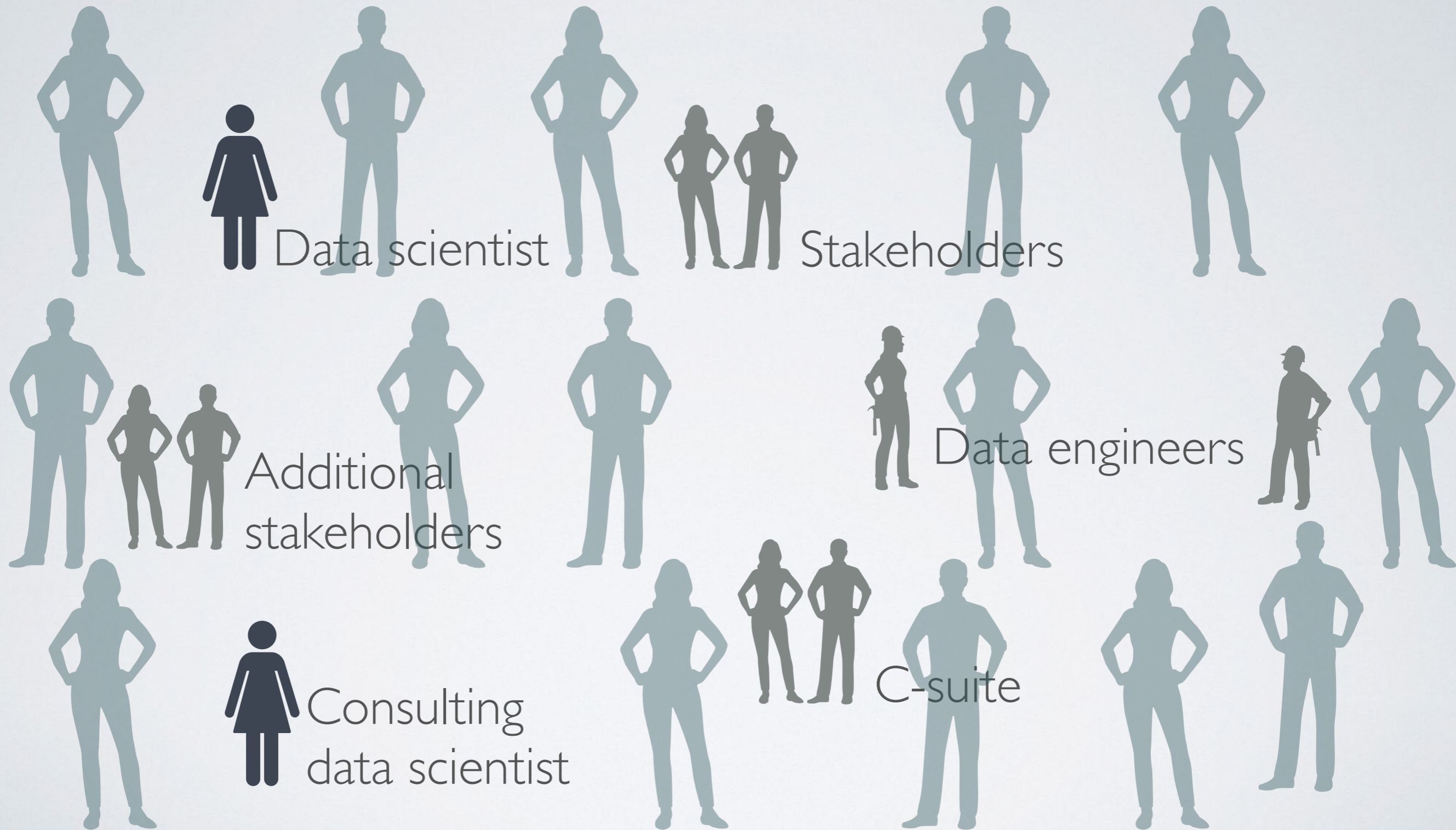
Results:

- Major projects done more efficiently
- Smaller projects done in reasonable time frame, communicated well
- Everyone's needs handled
- I feel more satisfied with tasks & output

PROCESSES



WHO MAKES DECISIONS?



WHO IS...

Task: Developing an SAP

Responsible



Biostatistician



Research fellow

Accountable



Biostatistician

Consulted



Faculty mentor

Informed



Additional faculty, research coordinator, DB team

more:
bit.ly/dpm-raci

DOCUMENTATION

Project request form
for gathering initial info

- Goals for analysis
- **A**ccountable &
consulted team
members
- Logistics



Potential roadblocks discussed *before* data work gets underway;
clearer vision of decision-makers, end product, & value added

CIBS Center Biostatistics & Data Management Core Project Request

We are excited to collaborate with you! Before submitting your request, please read through the Biostatistics Core Onboarding Guide (NOTE: currently in progress; will be linked here when ready). This document answers common questions and explains how best to work with the biostats core to efficiently produce the best research possible.

These processes are in place to help us manage an ever-growing group of investigators and their needs. The information below will help us work with you to understand, prioritize, and execute your project. We expect these details to evolve to some extent during the course of the project, but we've learned from experience that thinking through them before starting makes the process much smoother.

In progress:
Onboarding
docs for
new team
members

Deadlines



What's already available?



Funding source



Target product



IRB permissions



Data source(s)





SYSTEMIC CONSIDERATIONS



- Can we do a better job at **recognizing** these professional skills?

Relevant: Manisha Desai's WSDS2017 talk on recognizing team scientists in academia

- Varied career ladders - industry currently does this better than academia IMO
- Update typical promotion criteria
- If this work is valuable, provide training/support
- Offset time spent on PM tasks by asking for **protected time** to either perform those tasks, or to focus on promote-able tasks
professional development, developing group infrastructure...
- Are you a **manager/supervisor**? Do you see this happening? Step in!
- **Know what is valued** by your organization, your career path - and *yourself*



ACKNOWLEDGEMENTS & RESOURCES

- VUMC Strategy & Innovation Office for project management training
- Jesse Mostipak & Sharla Gelfand for nonprofit & industry perspectives 🐛🐛

Related reading!



Trey Causey on the data scientist as product manager
(*product != project, but many similar concepts*)

Tanya Reilly on “glue work” (*h/t to Sharla!*)

Roger Peng on balancing resources, analysts managing the flow of information