

Why SAS Users Are Old But Not Dead

Michigan SAS Users Group Meeting
February 22, 2018

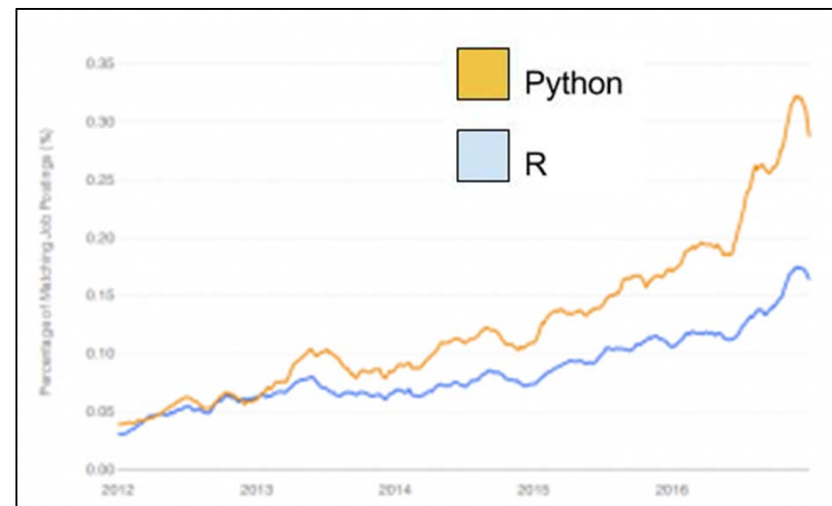
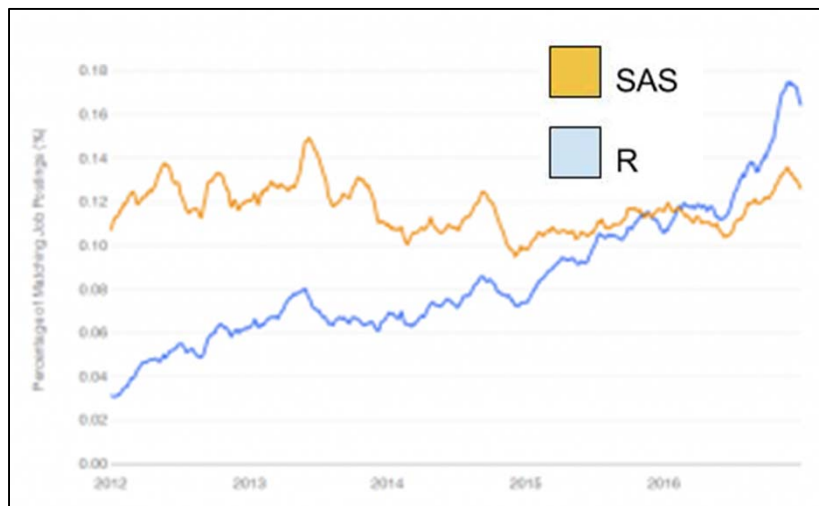
Welcome to MSUG

■ Welcoming Remarks

- Magnify is an Analytic Services provider.
- It is a division of Marketing Associates LLC – A full-service, technology-enabled marketing company headquartered in Detroit, Michigan, with offices in Wilmington, Delaware and Charlotte, NC.
- We have long been a “SAS Shop”; very happy to be active with MSUG.
- Many thanks to Dr. Bruce Lund, the Godfather.
- Increasingly we market ourselves to our clients as “tool-agnostic”.

Why This Topic?

- In the 1990's and 2000's I remember SAS being, more or less, a monopoly. It isn't anymore. Who are the competitors? We'll focus on these: SAS, R, Python
- Several years ago SAS ceased giving special pricing to universities. That was a mistake which has been undone since. It led to rapid growth in jobs requiring R and Python. See the widely-published graphs below (from r4stats.com)

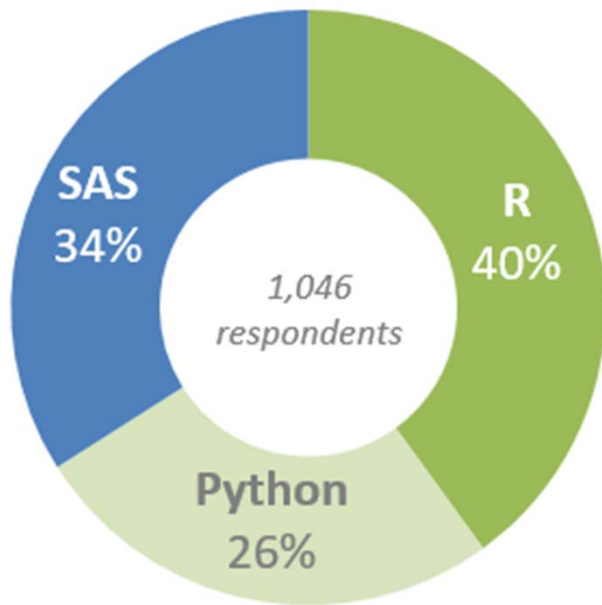


- The Elephant In The Room: If you hired analysts/statisticians right out of school since SAS's "mistake", you may noticed the bifurcation: young analysts use R, more experienced analysts use SAS.

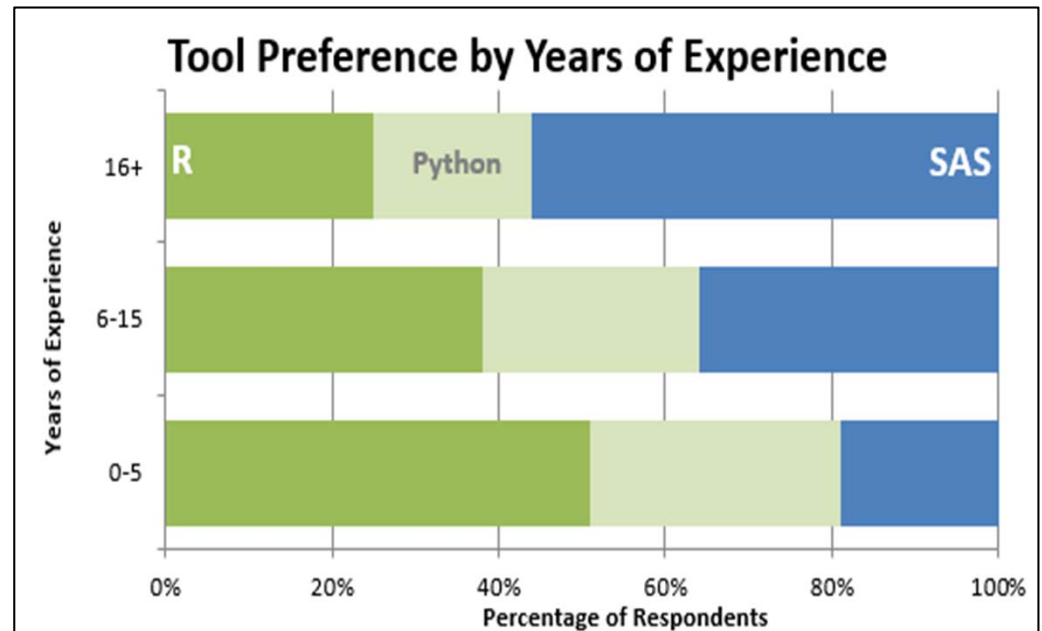
So Is My Claim Valid? Are SAS Users Old?

- According to a recent BurtchWorks survey of Quantitative Business Professionals, here is where we stand today:

Which tool do you prefer to use: SAS, R, or Python?



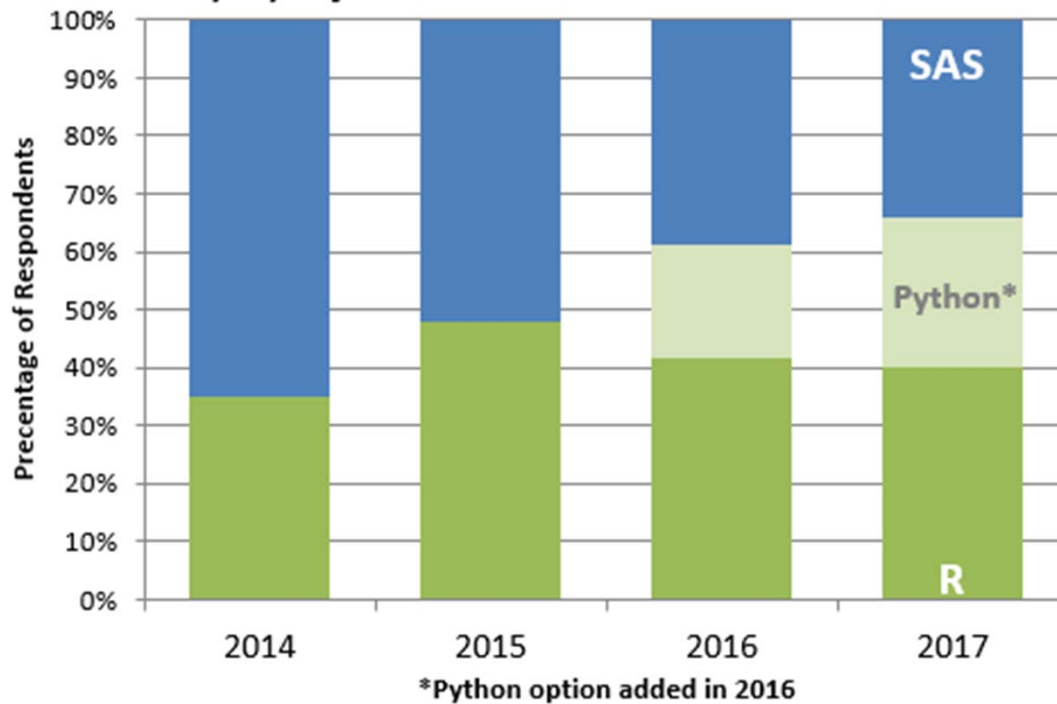
SAS owns the “16+ years of experience” segment...



And the Trends Don't Appear to Be in SAS's Favor...

According to the BurtchWorks Survey:

SAS, R, Python Preference Over Time



Select comments from the 2017 survey:

“SAS, but I’m over 40. Those young kids and their cool sounding software...”

“First choice is Python, second R and thank God we fired SAS.”

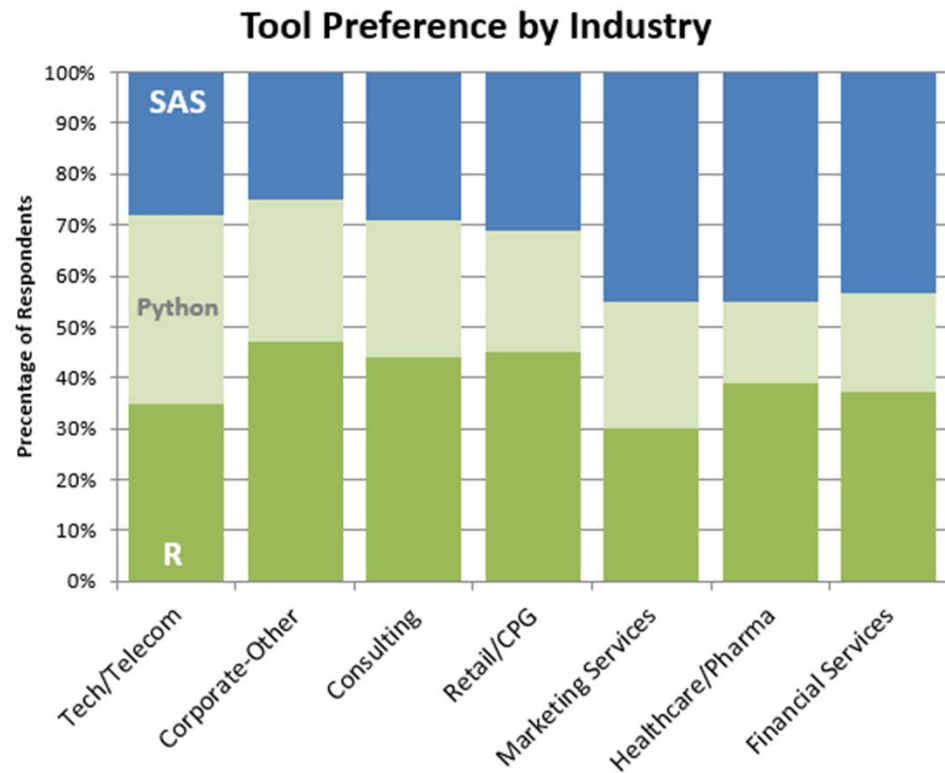
“My vote is for SAS. It’s a great end to end tool hands down!”

What Else Is Going On?

- R and Python are free. SAS is expensive.
- Start-ups are more prevalent than they used to be. The cost of SAS can be prohibitive to a companies that are not yet cash-flow positive.
- Deep Learning techniques are more popular than ever...SAS is behind R and Python on this. Same is true for unstructured data (more later).
- *Editorially speaking...SAS “Solutions”* haven’t taken off to the extent they could have: they lack sufficient customization on a vertical-by-vertical basis; they’re too expensive, and Enterprise Miner (which is what many of them are built upon), is a disappointment.

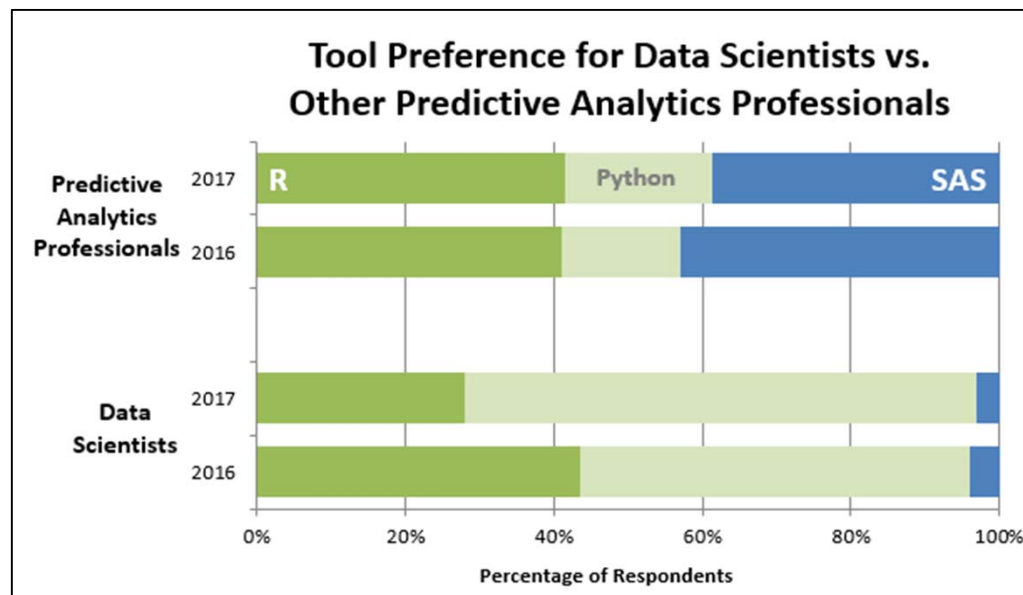
But SAS Users Are Definitely Not Dead

- The three biggest applications of analytics are the following (and this has been true for some time):
 - Financial Services
 - Pharma / HealthCare
 - Marketing Services
- SAS is the preference for professionals in ALL of the above. See graph right (*source: Burtchworks Survey*)



SAS Is Institutional For Many Companies...

- Credit Risk Model audits: “Can we have your SAS code”?
- Pharma / HealthCare & Survival Analysis
- Many lenders have legacy SAS code still running in production.
- SAS is still relied upon to produce deployable predictive models on structured data.
 - The use of SAS for Predictive Analytics is still high (see below).
 - Data Scientists who focus on unstructured data barely use SAS. But how many institutional processes depend on unstructured data?



My “Going Forward” Speculation

- Analytics organizations will become increasingly tool-agnostic.
- Business problems will dictate analytic solutions.
- Problem-solvers will dictate tools.
 - NextGear Capital / Cox Automotive example
- Deployment solutions (rules engines) will become increasingly tool-agnostic.
- Operational systems (loan origination, point-of-sale, account management, Salesforce, etc...) will continue to simply need real-time “answers” from Analytics, without concern for what tools are being used.
 - **The debate over the right tool is only among ourselves; users of our services, solutions, and insights don't care what we use.**