

```
In [1]: from IPython.display import IFrame
import ipynb_style
from epstata import Stpy
import pandas as pd
from itertools import combinations
from importlib import reload
```

```
In [2]: reload(ipynb_style)
ipynb_style.clean()
#ipynb_style.presentation()
#ipynb_style.pres2()
```

Out[2]:

## Data Workflows in Stata and Python

<http://www.stata.com> <https://www.python.org>



pythor

## Data Workflows in Stata and Python

Dejan Pavlic, Education Policy Research Initiative, University of Ottawa

Stephen Childs (presenter), Office of Institutional Analysis, University of Calgary



UNIVERSITY OF  
CALGARY



uOttawa

<http://ucalgary.ca> <http://uottawa.ca>  
<http://socialsciences.uottawa.ca/epri/eng/index.asp>



**EPRI** Education Policy  
Research Initiative  
Initiative de recherche sur les politiques de l'éducation

## Introduction

### About this talk

### Objectives

- know what Python is and what advantages it has
- know how Python can work with Stata

**Please save questions for the end.** Or feel free to ask me today or after the conference.

### Outline

- Introduction
  - Overall
  - Motivation
  - About Python
- Building Blocks
  - Running Stata from Python
  - Pandas
  - Python language features
- Workflows
  - ETL/Data Cleaning
  - Stata code generation
  - Processing Stata output

### About Me

- Started using Stata in grad school (2006).
- Using Python for about 3 years.
- Post-Secondary Education sector

- University of Calgary - Institutional Analysis (<https://oia.ucalgary.ca/Contact>)
- Education Policy Research Initiative (<http://socialsciences.uottawa.ca/irpe-epri/eng/index.asp>)  
- University of Ottawa (a Stata shop)

## Motivation

- Python is becoming very popular in the data world.
- Python skills are widely applicable.
- Python is powerful and flexible and will help you get more done, faster.

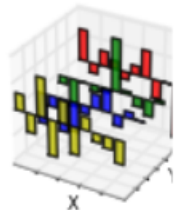
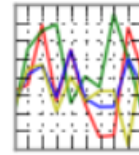
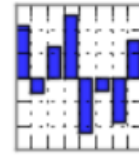
## About Python

### The Python Language

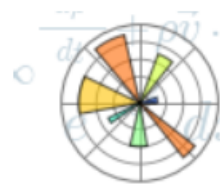
- General purpose programming language
- Name comes from Monty Python
- Python 2 vs. 3 - use Python 3
- "batteries included"

### Scientific Python

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$


(<http://pandas.pydata.org>)



matplotlib

(<http://matplotlib.org/>)



(<http://www.numpy.org>)