

A boring (academic) title or a clever title?

A secondary title

YOUR NAME HERE *Washington State University*

In this article we compare the *empirical characteristic function* (Tukey 1977; Becker et al. 1988) to a *moment-generating-functional form* to compute the proportion of hypotheses m that are rejected under the null hypothesis.

Here is a second paragraph of the abstract (if necessary), and with the pipe notation it doesn't break. Notice it still needs to be indented.

Generally, we write this abstract last. Often it is called the executive summary. It should succinctly summarize the entire document. You can include references such as this one to the Appendices section 6 if necessary.

Keywords: multiple comparisons to control; multivariate chi-square distribution; nonlinear growth curves; Richard's curve; simulated critical points

November 09, 2020

1 Introduction

Write something here.

[ONE GRAPHIC]

[TWO GRAPHICS AS ONE]

Write something here.

2 Research Question: What is my primary question

2.1 *What is my secondary question*

2.2 *What is my other secondary question*

3 Data Description

Very brief introduction to the data, how it was collected, and so on. Remember that everything is covered (who, what, when, where, why, how, so what, and so on). Reference the section in the Appendix with greater detail about the data provenance. This section should be about two paragraphs, and the Appendix should have more information.

3.1 *Summary of Sample*

3.2 *Summary Statistics of Data*

4 Key Findings

5 Conclusion

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Here is some more text.
Below are some example code that may benefit you in preparing your document.

Please state your name: _____
I was born on _____ in _____

$$Y_{jt} = \alpha + \beta X_{jt} + v_j + \varepsilon_{jt}, \tag{1}$$

where α is the grand mean, v_j is the fixed-time country mean, X_{jt} (country j at time t) is the matrix of country-level observations for the vector of aforementioned parameters β , and ε_{jt} represents the residual idiosyncratic disturbance. Our panel data set consists of repeated observations of countries over time. Therefore, we employ cross-section time-series models. This approach redefines Equation~1 by subtracting time-demeaned values. This *within* transformation subtracts constant country effects for the dependent variable \bar{Y}_j , the predictor variables \bar{X}_j , and the intercept \bar{v}_j :

$$(Y_{jt} - \theta \bar{Y}_j) = (1 - \theta)\alpha + \beta(X_{jt} - \bar{X}_j) + (v_{jt} - \theta \bar{v}_j), \tag{2}$$

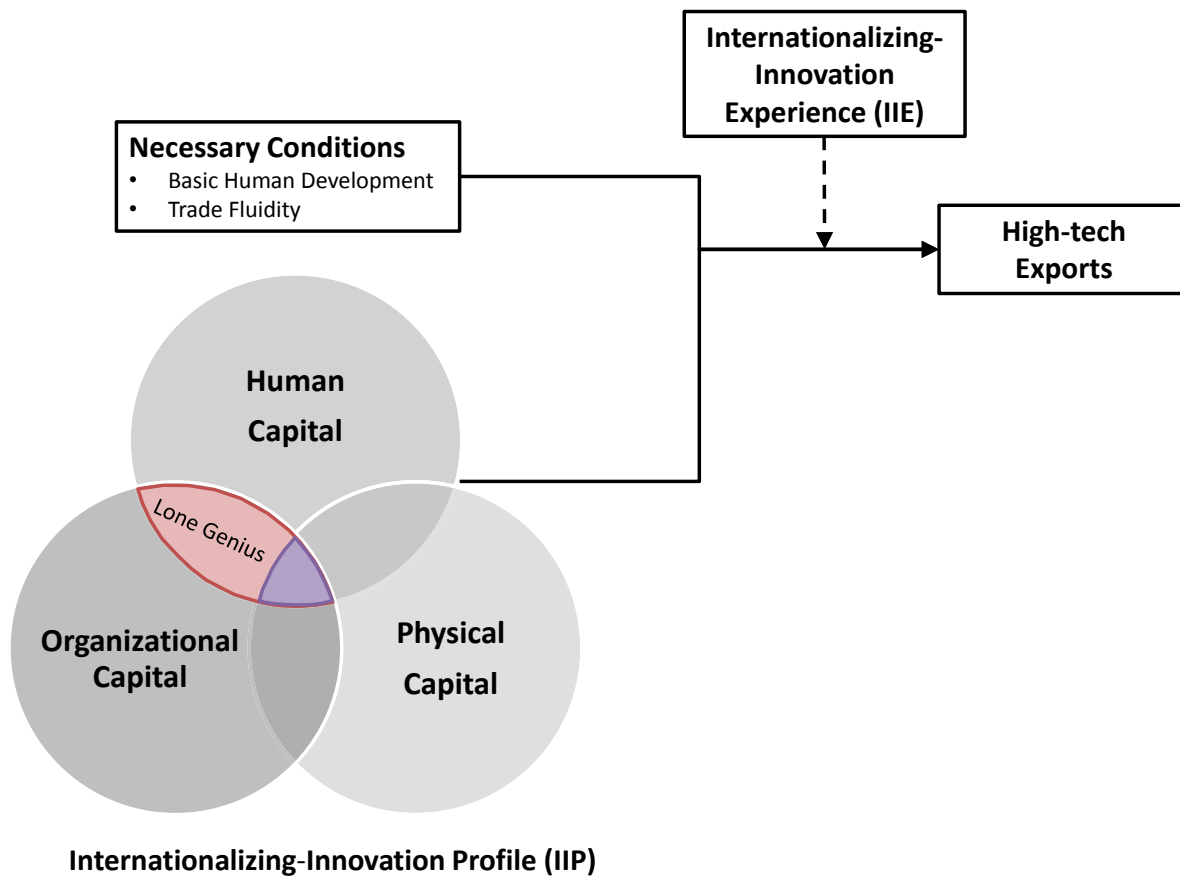
If $\theta = 0$, the model reduces to a basic pooled ordinary-least-squares (OLS) model; if $\theta = 1$, the model reduces to a fixed-effects model; otherwise the model represents a random-effects model. The pooled OLS estimation is biased if country effects exist (?). The random-effects model may be susceptible to omitted-variable bias (?): bias because a predictor was excluded from the model specification. Conversely, the fixed-effects model is not susceptible to this bias as it captures unobserved intracountry variation around its average country-level “fixed effect.” Panel-data analysis commonly has issues with heteroskedasticity, serial autocorrelation, and cross-sectional autocorrelation.

$i = 1$ and $i = 1$

1	2	3	4	5
6	7	8	9	10

See Figure 1.

Figure 1: Conceptual Model



This is a footnote^[1] that can be placed within a document.

Refer to the Appendices in section~6 where I am going to cite John (?, pp. 2-3).
Here is a quote by ?, pp. 2-3:

For a long time I have thought I was a statistician, interested in inferences from the particular to the general. But as I have watched mathematical statistics evolve, I have had to cause to wonder and to doubt. [...] All in all, I have come to feel that my central interest is in *data analysis*, which I take to include among other things: procedures for analyzing data, techniques for interpreting the results of such procedures, ways of planning the gathering of data to make its analysis easier, more precise or more accurate, and all the machinery and results of (mathematical) statistics which apply to analyzing the data.

Large parts of data analysis are inferential in the sample-to-population sense, but these are only parts, not the whole. Large parts of data analysis are incisive, laying bare indications which we could not perceive by simple and direct examination of the raw data, but these too are only parts, not the whole. Some parts of data analysis, as the term is here stretched beyond its philology, are allocation, in the sense that they guide us in the distribution of effort and other valuable considerations in observation, experimentation, or analysis. Data analysis is a larger and more varied field than inference, or incisive procedures, or allocation.

Statistics has contributed much to data analysis. In the future it can, and in my view should, contribute more. For such contributions to exist, and be valuable, it is not necessary that they be direct. They need not provide new techniques, or better tables for old techniques, in order to influence the practice of data analysis.

Table 1: Descriptive Statistics and Correlation Analysis

	M	SD	1	2	3	4	5	6	7	8	9
1. ln(High-technology Exports)	22.03	2.22	1								
2. Human Development (HDI)	.78	.10	.36***	1							
3. Trade Openness (OPEN)	81.25	60.73	.22***	.21***	1						
4. WTO	.82	.39	.11**	.18***	.14***	1					
5. Team: Sole Inventor	.37	.16	-.05	.04	-.22***	-.30***	1				
6. Team: Multiregional	.38	.19	-.31***	-.32***	.11***	.25***	-.72***	1			
7. Firm = 0	.17	.14	-.46***	-.33***	-.23***	-.20***	.35***	-.04	1		
8. Firm = 2+	.04	.05	-.03	-.10**	-.02	.09**	-.19***	.20***	-.03	1	
9. Independent Claims (DEPTH)	2.43	.54	.00	.04	.06†	.32***	-.38***	.35***	-.14***	.03	1
10. Unique Technologies (BREADTH)	1.64	.19	.00	-.03	-.05†	-.20***	-.20***	.10**	-.05	.00	.14***

† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Notes: Pearson pairwise correlations are reported. Correlations and Summary Statistics fail to account for country-level and time-varying effects. We caution the reader to make inferences from these basic associations. They do not capture joint associations inherent to a regression model.

6 APPENDICES

6.1 *Data Provenance*

6.1.1 Data Collection Handout

Figure 2: Handout Page 1

Measurements

Questions for survey:

Name _____

Gender _____

Ethnicity _____

Age _____

Dominant hand for writing _____

Dominant hand for swinging a bat _____

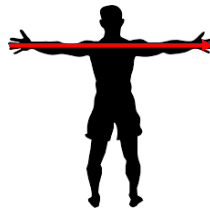
Eye color _____

How long this survey took _____

Measure the size of your hand (middle finger to wrist) right hand __cm, left hand __cm,

The hand span (pinkie to thumb fully extended) right hand __cm, left hand __cm,

Your wingspan shown on the right (middle finger of each hand fully stretched out) __cm.

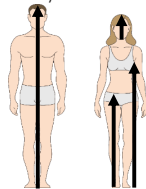


Take four measurements, first being the height (standing) __cm,

Second the height of your head (chin to top of head) __cm,

Third the standing length from the floor to your hip bone right side __cm, left side __cm,

Lastly the standing length (height) from the floor to your armpit, right side __cm, left side __cm.



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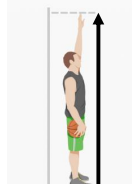
WSU ID 11637389

Figure 3: Handout Page 2

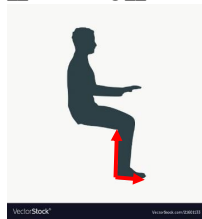
Take two measurements for each arm, first being the length from your middle finger to your elbow (measured on the inside) right arm __cm, left arm __cm.
Second the length from your elbow to your armpit right arm __cm, left arm __cm.



Measure the standing reach (flat footed, how far can you reach on a wall with the tip of your finger) __cm,



Take two measurements for each foot and leg, your right foot __cm, left foot __cm.
Second the sitting length from the floor to your knee pit (like armpit but for your knee) right leg, __cm, left leg __cm.



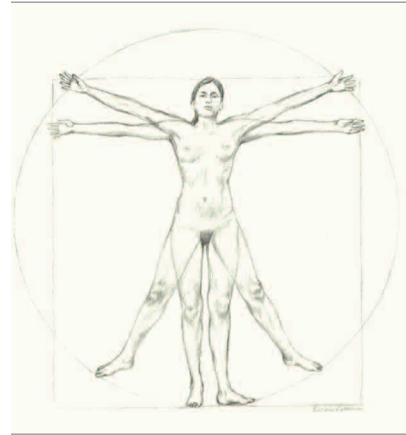
Measure the circumference of your head __cm.



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(a) Thomas et al. (2020) discuss this.



(b) Schnitt realer Sensor (Thomas et al. 2020)

Figure 4: Der Sensor in Theorie und Verwirklichung... caption at bottom instead? I can write a really long caption if I want.

This is using "crop" to include one image and trim it to appear as two. Likely you will have two separate images if you use this option, so you would set the trim parameters all equal to 0.

This figure has subfigures which each also have a possible caption.

6.2 *Preparing the Report Workspace as a subsection*

6.2.1 *Preparing the Report Workspace as a subsubsection*

Preparing the Report Workspace as a paragraph

Preparing the Report Workspace as a subparagraph Below is the necessary functions and libraries required to run the code referenced in this document.

```
library(devtools);          # required for source_url
```

```
## Warning: package 'devtools' was built under R version 4.0.3
```

```
path.humanVerseWSU = "https://raw.githubusercontent.com/MonteShaffer/humanVerseWSU/"
source_url( paste0(path.humanVerseWSU,"master/misc/functions-project-measure.R") );
```

```
## Warning: package 'survival' was built under R version 4.0.3
```

```
## Warning: package 'Formula' was built under R version 4.0.3
```

Below is the code to load the data and prepare it for analysis.

```
path.project = "C:/Users/Nic Trout/Documents/C/WSU_STATS419_FALL2020/project-measure_nic/";
```

```
path.to.secret = "C:/Users/Nic Trout/Desktop/";
```

```
measure = readRDS(paste0(path.to.secret, "final.measure.rds"))
```

```
#path.github = "https://raw.githubusercontent.com/this-IS-YOUR-PATH-TO-GITHUB/";
#source_url( paste0(path.github,"master/functions/functions-project-measure.R") );
```

```
# this is your function
# put in the same "units"
# merge left/right
# build proportion data
# and so on ...
# measure.df = prepareMeasureData(measure);
```

Below is the code to generate the summary statistics and save them as a table that you see in Section ??.

ENDNOTES

[1] This is a footnote that can be really long.

You can have multiple paragraphs in the footnote. You can have underline or **bold** or *italics*. You can even have a math equation inline.

In this section, we review the regression results to summarize our findings. First, we examine each model for significance, and conclude the hypothesized models fit well with the data. Second, we conclude that the fixed country effects represent consistent and unbiased parameter estimates. Third, with the use of the ? robust standard errors, we adjust any variance bias to ascertain the significance of these consistent estimates. Therefore, we are able to make inferences about the hypotheses using our model estimates. For ease of interpretation across these 12 models, we introduce $\hat{\beta}_{Total}^{M1}$ as notation to refer to parameter estimate $\hat{\beta}_1$ (HDI) for the Total Sample and (M1) Model 1: Main Effects. We proceed by reporting findings for the total sample.

The footnotes are automatically converted to "endnotes" and will be included at the end of the document. It will finish when you have that outer brace like this.

REFERENCES

- Becker, Richard A, John M Chambers, Allan R Wilks. 1988. *The New S Language*. Wadsworth & Brooks.
- Thomas, Diana M, David Galbreath, Maura Boucher, Krista Watts. 2020. Revisiting leonardo da vinci's vitruvian man using contemporary measurements. *Jama* **323**(22), 2342–2343.
- Tukey, John W. 1977. *Exploratory data analysis*. 1st ed. Reading, MA.

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