## The Arithmetic of Life and Death

George Shaffner
$\square$ Decisionmaking
$\square$ Why you must produce
$\square$ Teamwork
$\square$ Smoking
$\square$ Investment
$\square$ Easter Island
$\square$ After Math - why more things go wrong than right

## Decisionmaking 1/ 2

|  | School | School | School |  | School | School |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# 1 | \# 2 | \# 3 | \# 4 | \# |  |
| University Reputation | 5 | 4 | 3 | 2 | 1 |  |
| Department Curriculum | 4 | 5 | 3 | 1 | 2 |  |
| Employment Opportunities | 3 | 4 | 5 | 2 | 1 |  |
| Tuition Cost | 1 | 2 | 3 | 4 | 5 |  |
| Cost of Living | 2 | 3 | 1 | 4 | 5 |  |
| Postgrad Research | 3 | 4 | 5 | 2 | 1 |  |
| Quality of Life | 5 | 1 | 2 | 4 | 3 |  |
| Closeness to Home | 3 | 2 | 1 | 5 | 4 |  |
| Student Living Facilities | 3 | 4 | 2 | 5 | 1 |  |
| Total | $\mathbf{2 9}$ | $\mathbf{2 9}$ | $\mathbf{2 5}$ | $\mathbf{2 9}$ | $\mathbf{2 3}$ |  |

## Decisionmaking $2 / 2$

|  | School \# 1 | School \# 2 | $\begin{gathered} \text { School } \\ \# 3 \end{gathered}$ | School \# 4 | School \# 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Triple Weighted |  |  |  |  |  |
| University Reputation | 15 | 12 |  | 6 |  |
| Department Curriculum | 12 | 15 |  | 3 |  |
| Employment Opportunities | 9 | 12 |  | 6 |  |
| Double Weighted |  |  |  |  |  |
| Tuition Cost | 2 | 4 |  | 8 |  |
| Cost of Living | 4 | 6 |  | 8 |  |
| Postgrad Research | 6 | 8 |  | 4 |  |
| Single Weighted |  |  |  |  |  |
| Quality of Life | 5 | 1 |  | 4 |  |
| Closeness to Home | 3 | 2 |  | 5 |  |
| Student Living Facilities | 3 | 4 |  | 5 |  |
| Total | 59 | 64 |  | 49 |  |

## Why you must produce $1 / 2$

How much to produce for net income of $\$ 10,000$

| net income | $\$ 10,000 /$ year |
| :--- | :--- |
| taxes | $\$ 2,500$ |
| costs | $\$ 7,500$ |
| profit | $\$ 3,000$ |
| Total | $\$ 23,000 /$ year |
|  | or (\$12/ hour $)$ |

A 10 employees Company must produce $\$ 230,000$

## Why you must produce 2/ 2

If 2 employees underperform (50\%)

$$
\begin{aligned}
& \$ 230,000-\$ 23,000=\$ 207,000 \\
& \$ 207,000 / 8=\$ 25,875 \\
& \$ 25,875-\$ 23,000=\$ 2,875 \text { more }
\end{aligned}
$$

240 hours more per year, OR 20 hours more per month, OR 5 hours more per week, OR half of every Saturday

## Teamwork

## Boeing

It will take 250 years for one person to manufacture one Boeing 777

## Cafe

4 tables
Open 8 hours
2 hours per average meal
16 tables per day
=30 minutes per table

## Smoking

> A pack a day
> 1 day $-\$ 1$
> 1 year $-\$ 350$
> 50 years $-17,500$
> $+\%-\$ 175,000$
> 50 years $-175,000$
> 1 year $-\$ 3,500$
> 1 day $-\$ 10.00$

## I nvestment

## Main factors

- when start
- rate of return
- how much


## I nvest young

start at $25-\$ 2,000$ at 7\% - \$419,000 at 65
start at $45-\$ 6,000$ at 7\% - \$263,000 at 65

## Easter I sland

## Easter Island

Area - 64 sq. mile
Population (optimal) - 7,000 ( $110 \mathrm{man} / \mathrm{sq}$. mile)
Population (max) - 10,000 (156 man/sq. mile)

## Globe

Landmass - 52,433,000 sq. mile
Population (current) - 6,500,000,000 ( $124 \mathrm{man} / \mathrm{sq}$. mile)
Population (2021) ~8,179,548,000.00 (156 man/sq. mile)

## Armenia

Area - 11,583 sq. mile
Population (current?) - 2,000,000 ( $173 \mathrm{man} / \mathrm{sq}$. mile)
Population (current?) $-2,500,000$ ( $216 \mathrm{man} / \mathrm{sq}$. mile)
Population (current?) - 3,000,000 ( $260 \mathrm{man} / \mathrm{sq}$. mile)

## After Math - why more things go wrong than right?

Intelligence is not just a gift; it is a choice you make.

