

Understanding Real World Organizations

TSE M1 – Semester 1

September 2024

Paul Seabright

Week 1: Ronald Coase and the Nature of the Firm

Before we start....

- What do you learn from the following photo-montage?



Leading News
FINED
\$17 MILLION OVER
PRODUCTION ISSUES



BEAD B FINED
FINES \$177
FREIGHTS MILLION
PROBLEMS OVER
ISSUES PRODUCTIONS

BOEING
FRESH
PRODUCTION
ISSUES

Boeing Fined
\$17 million
Over production
Issues

The New York Times
BOEING'S
737 MAX
BOEING
FACES
NEW
PROBLEM
AGAIN

BOEING'S
788 DREAMLINER
PRODUCTION
ISSUES



BOEING
787 DREAMLINER



BOEING
FRESH SETBACK
OVER PRODUCTION
ISSUES

BOEING FACES
FRESH DESTINER
7787
GRAUNDED AGAIN

BOEING FACES
788
GRAUNDED
AGAIN

News
737 MAX

BOEING
DREAMLINER

BOEING FACES
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PROBLEMS
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BOEING
332 M777
332 MAX
GRAUNDED AGAIN

BOEING
737 MAX
GRAUNDED
AGAIN

Boeing faces 'long road' to make airplanes, US aviation chief says

Boeing has faced mounting questions after door panel detached during January Alaska Airlines flight, forcing emergency landing



The Boeing logo is seen on the side of a Boeing 737 MAX in 2022. Photograph: Cziborra/Reuters

Latest World **Business** U.S. Politics Economy Tech

Boeing's largest plant in 'panic mode' amid safety crisis, say workers and union officials

Managers in Washington accused of hounding staff to keep quiet over quality concerns, as employees point to union-busting



Boeing's production facility in Everett, Washington, on 15 June 2022. Photograph: Jennifer Richman/Seattle Times

Boeing's No Good, Never-Ending Tailspin Might Take NASA With It

Aug. 28, 2024

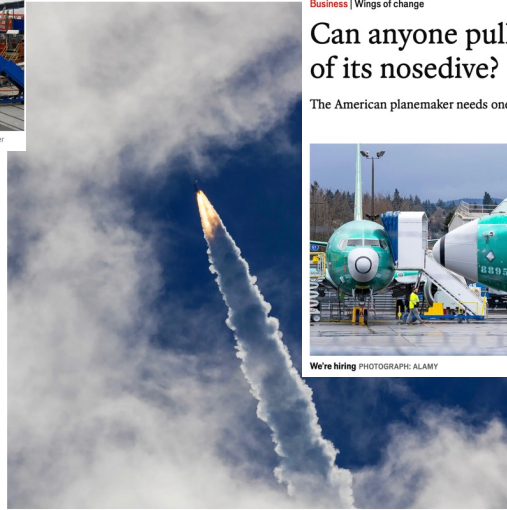
Business | Wings of change

Can anyone pull Boeing out of its nosedive?

The American planemaker needs one hell of a pilot



We're hiring PHOTOGRAPH: ALAMY



Ricardo Ramirez Buxeda/Orlando Sentinel, via Getty Images

Boeing Again Under Scrutiny After Latest 737 Max Problem

A sudden hole appearing in the side of an Alaska Airlines plane midflight follows years of problems with the manufacturer's aircraft.

BUSINESS Economy Economic Policy Personal Finance Work Technology Business of Climate

Boeing's troubles are spilling over to its airline customers

Boeing is urging its pilots to take unpaid time off as it and other carriers slow hiring to cope with delays in series

452



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Column | Your money and your mental health can suffer under

Boeing CEO Dave Calhoun to Step Down in Wake of 737 MAX Struggles

Calhoun says he will leave post at the end of the year; Boeing's chairman to be replaced

By Sharon Terlep Follow

Updated March 25, 2024 at 5:16 pm ET

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Boeing in 'last chance saloon', warns Emirates head

Tim Clark blames management and governance mis-steps for 'progressive decline' in US plane maker's manufacturing standards

Advertisement



Emirates is one of Boeing's biggest customers, and in November placed an order for 95 wide-body Boeing 777 and 787 jets © UrbanandSport/NurPhoto via Getty Images

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Boeing to buy supplier Spirit AeroSystems in \$4.7bn deal

US aircraft maker reverses decision it made nearly 20 years ago to outsource part of production amid safety crisis

Business live - latest updates



The Alaska Airlines plane maintenance building a MitchellDyer/Associated P



Spirit was spun off from Boeing in 2005 but it still accounts for about 70% of its orders. Photograph: Benoît Tessier/Reuters

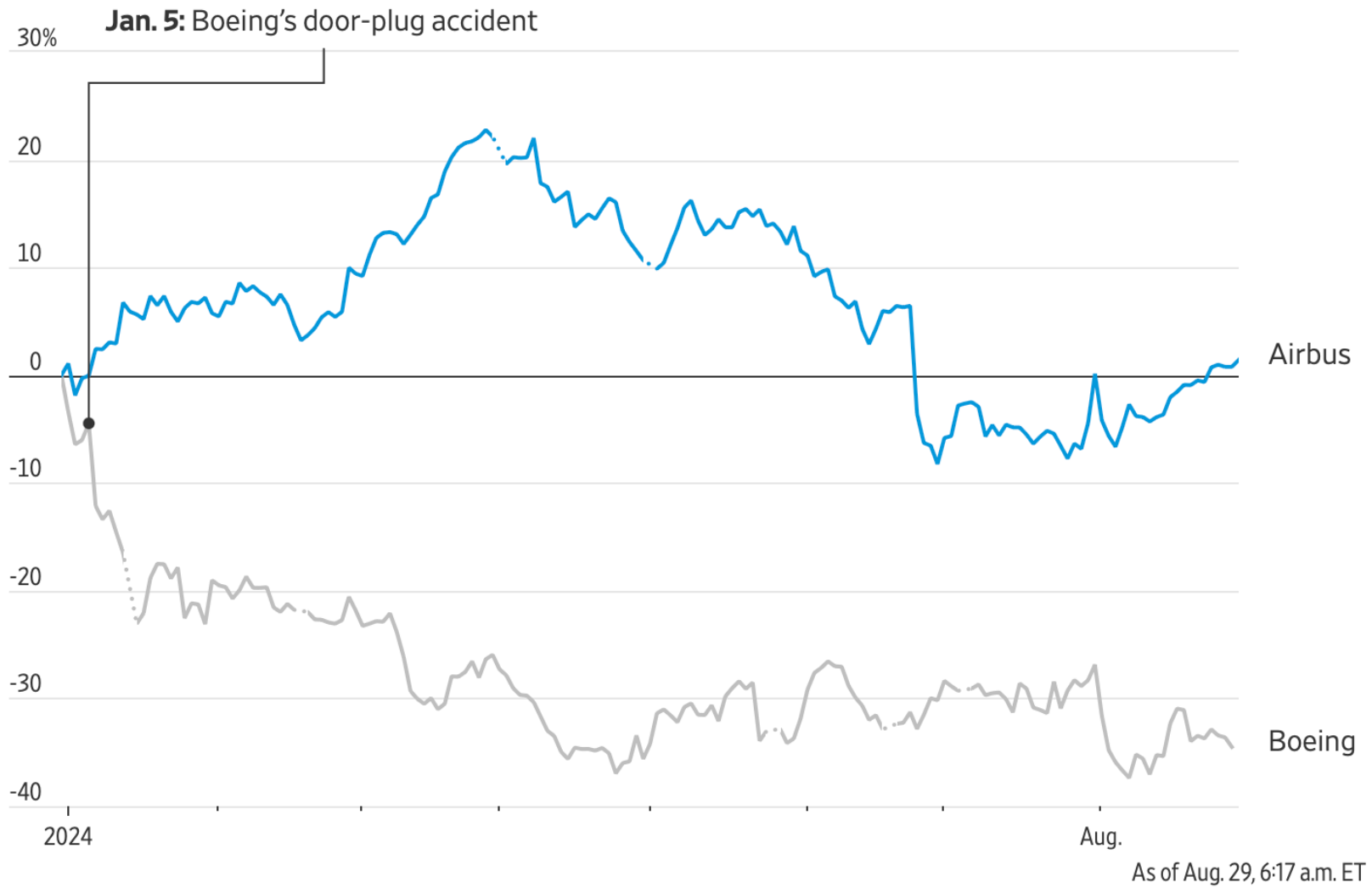
Boeing to plead guilty to fraud charge over 737 Max crash deal

Aircraft maker reaches plea agreement with US justice department



Boeing's 737 Max was involved in crashes in Indonesia and Ethiopia in 2018 and 2019 © Elaine Thompson/AP

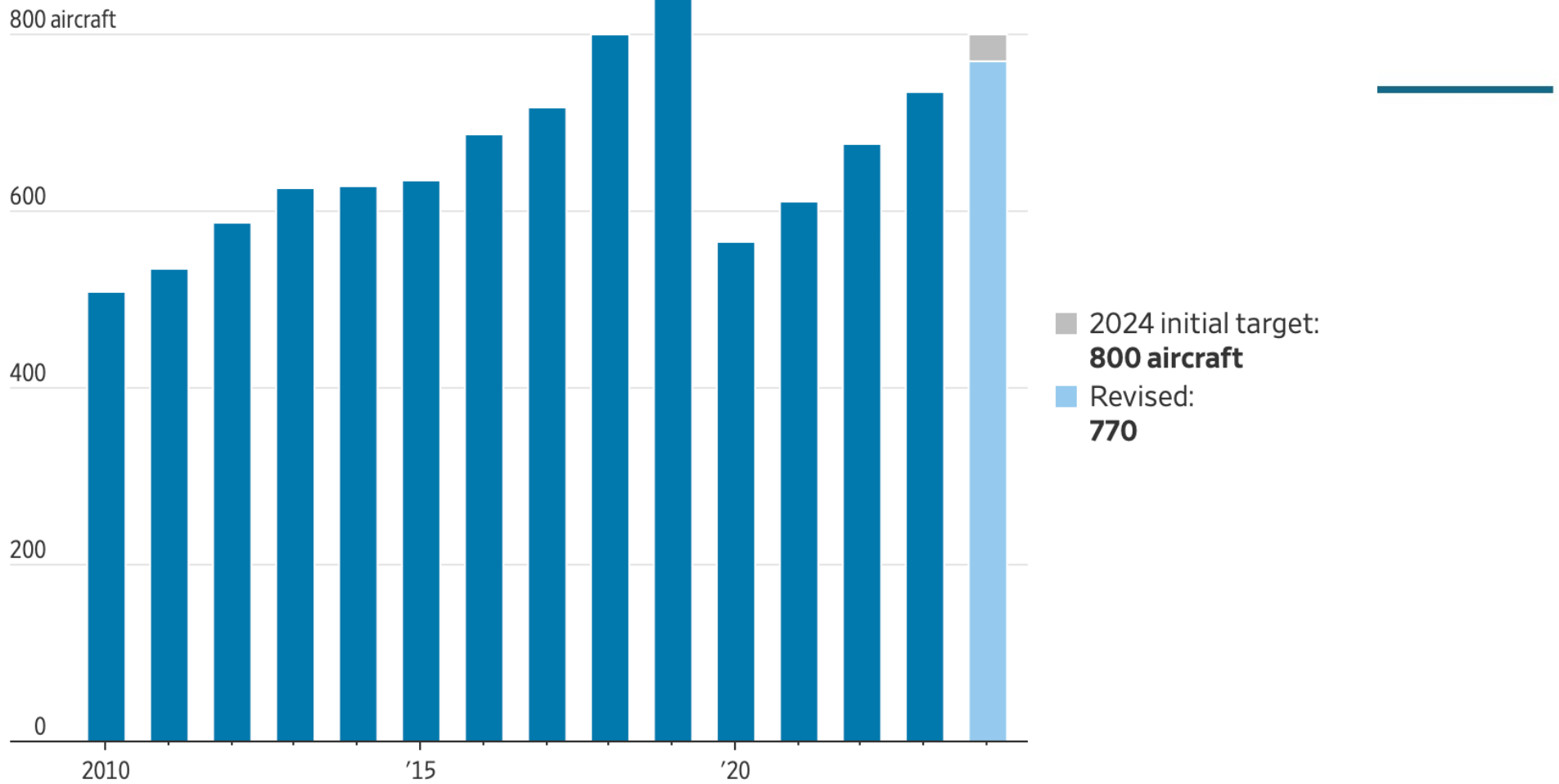
Share-price performance, year to date



Source: FactSet



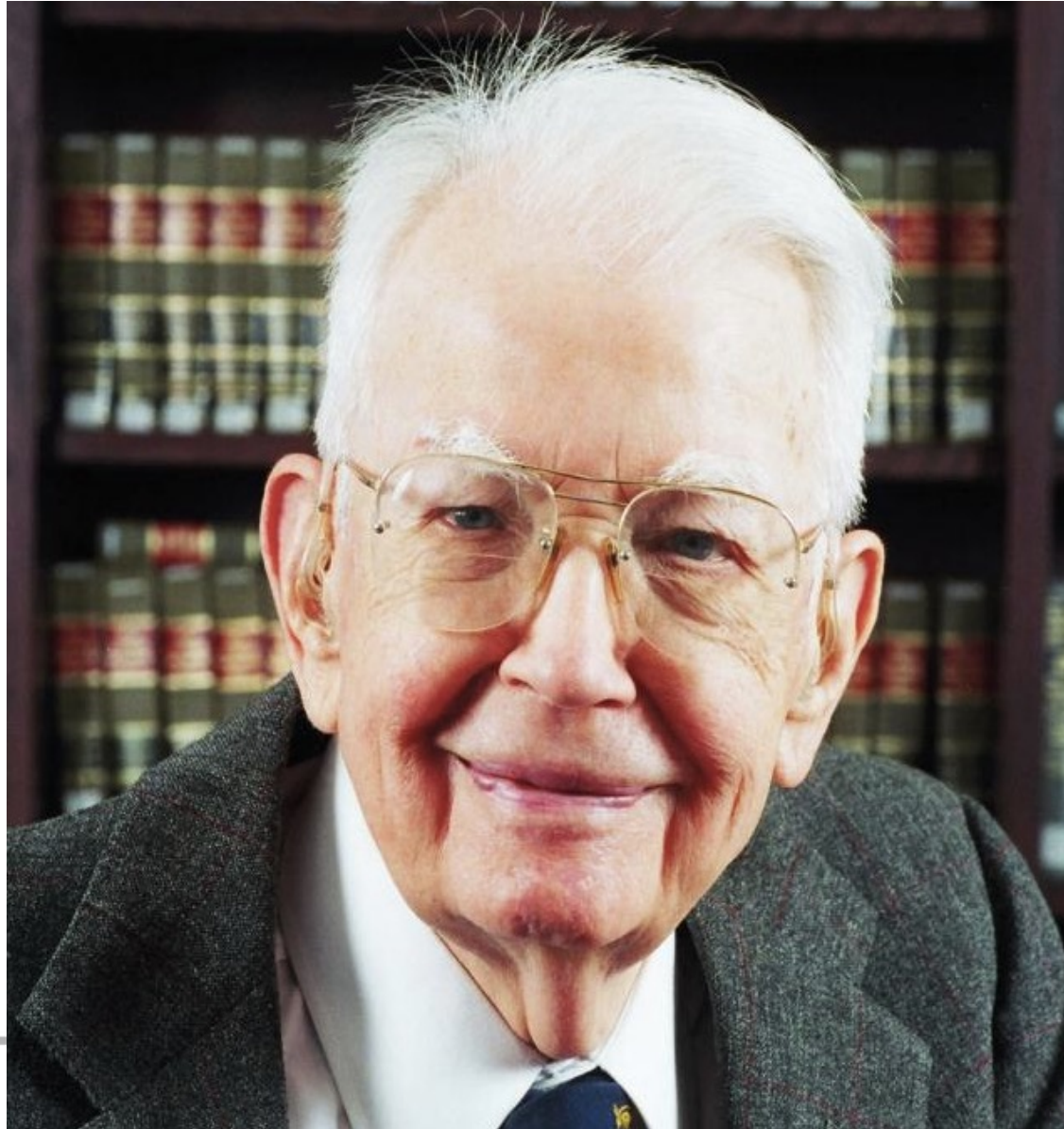
Airbus commercial aircraft deliveries



Source: the company



Ronald Coase, 1908-2013



Ronald Coase and the nature of the firm

- The different forms of economic exchange can be summarized as taking place within markets (where exchange is *negotiated*) or hierarchies (where exchange is *instructed*).
 - Coase asked what made one form preferable to the other
 - An advantage of markets is transparency of information transmission – a major theme in the work of Hayek
 - But the process of price creation can also entail real *transactions costs*.
 - Coase's insight: organizations evolve to economize on transactions costs.
-

An alternative vision of hierarchy...

“Monsieur Haneda était le supérieur de monsieur Omochi, qui était le supérieur de monsieur Saito, qui était le supérieur de mademoiselle Mori, qui était ma supérieure. Et moi, je n’ étais la supérieur de personne.


On pourrait dire les choses autrement. J’ étais aux ordres de mademoiselle Mori, qui était aux ordres de monsieur Saito, et ainsi de suite, avec cette précision que les ordres pouvaient, en aval, sauter les échelons hiérarchiques.

Donc, dans la compagnie Yumimoto, j’étais aux ordres de tout le monde.”

Amélie Nothomb, *Stupeur et Tremblements*



These questions are more pertinent than ever

- After all, what is a firm nowadays?
 - It can be defined by the legal form – but there are many of these (limited liability corporations, partnerships, single proprietorships)
 - And the legal form may not capture the economic reality
 - Think of some kinds of firm that are relatively new...
-
- 

What is Uber:

- A firm?
- A market?
- A service provider?
- An owner of intellectual property?
- None of the above?
- All of the above?

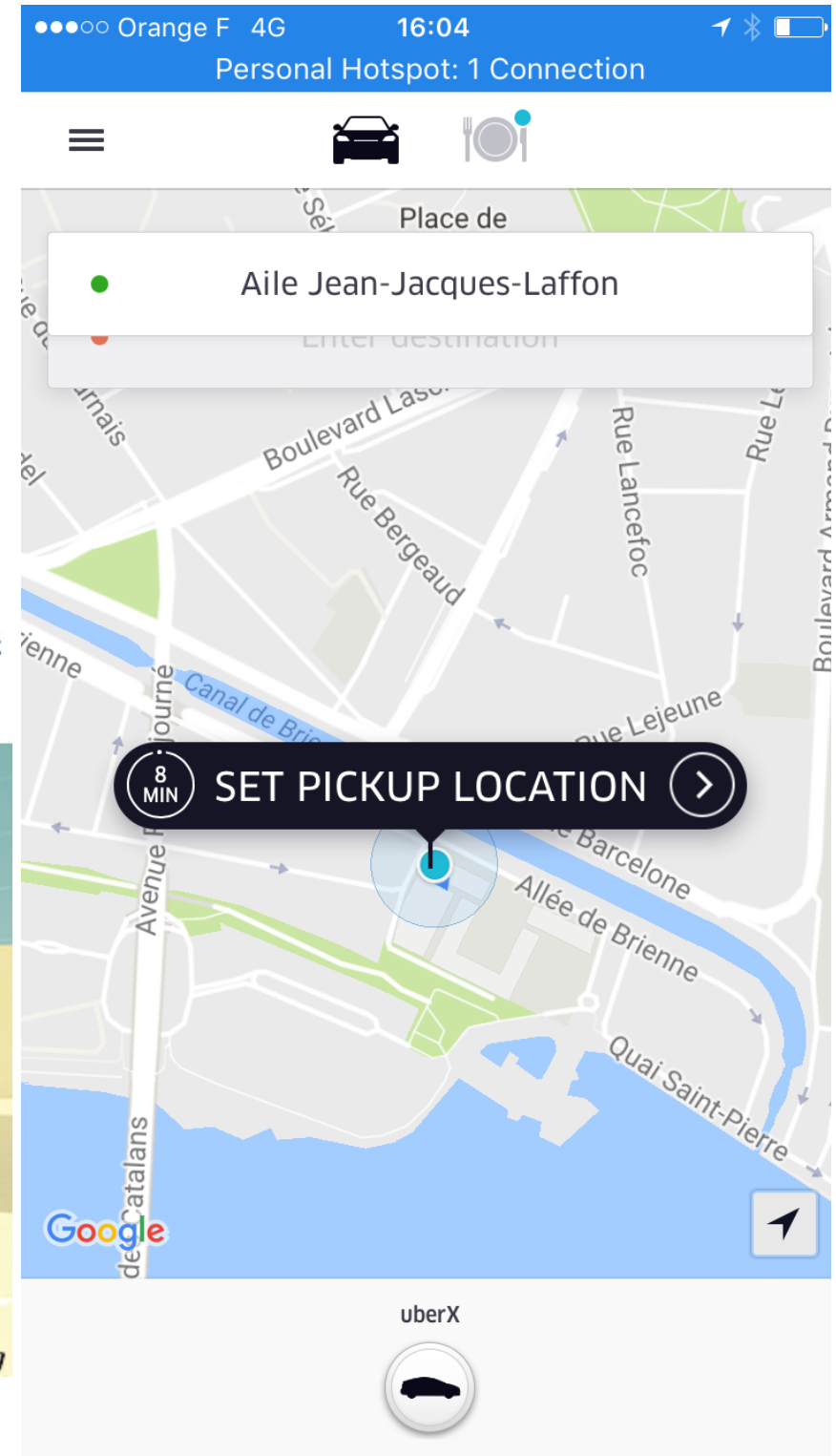
The world's most valuable startup is leading the race to transform the future of transport

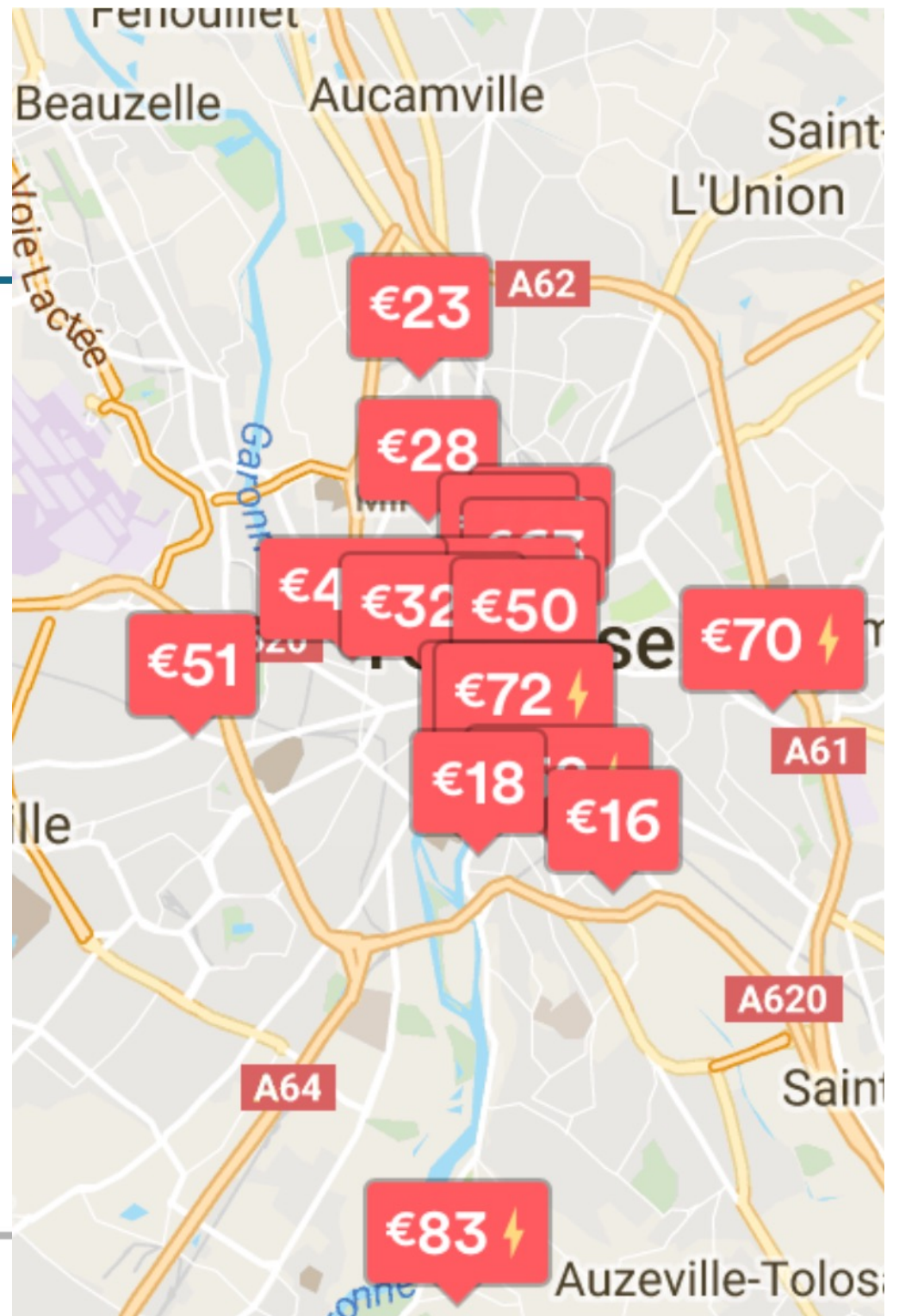
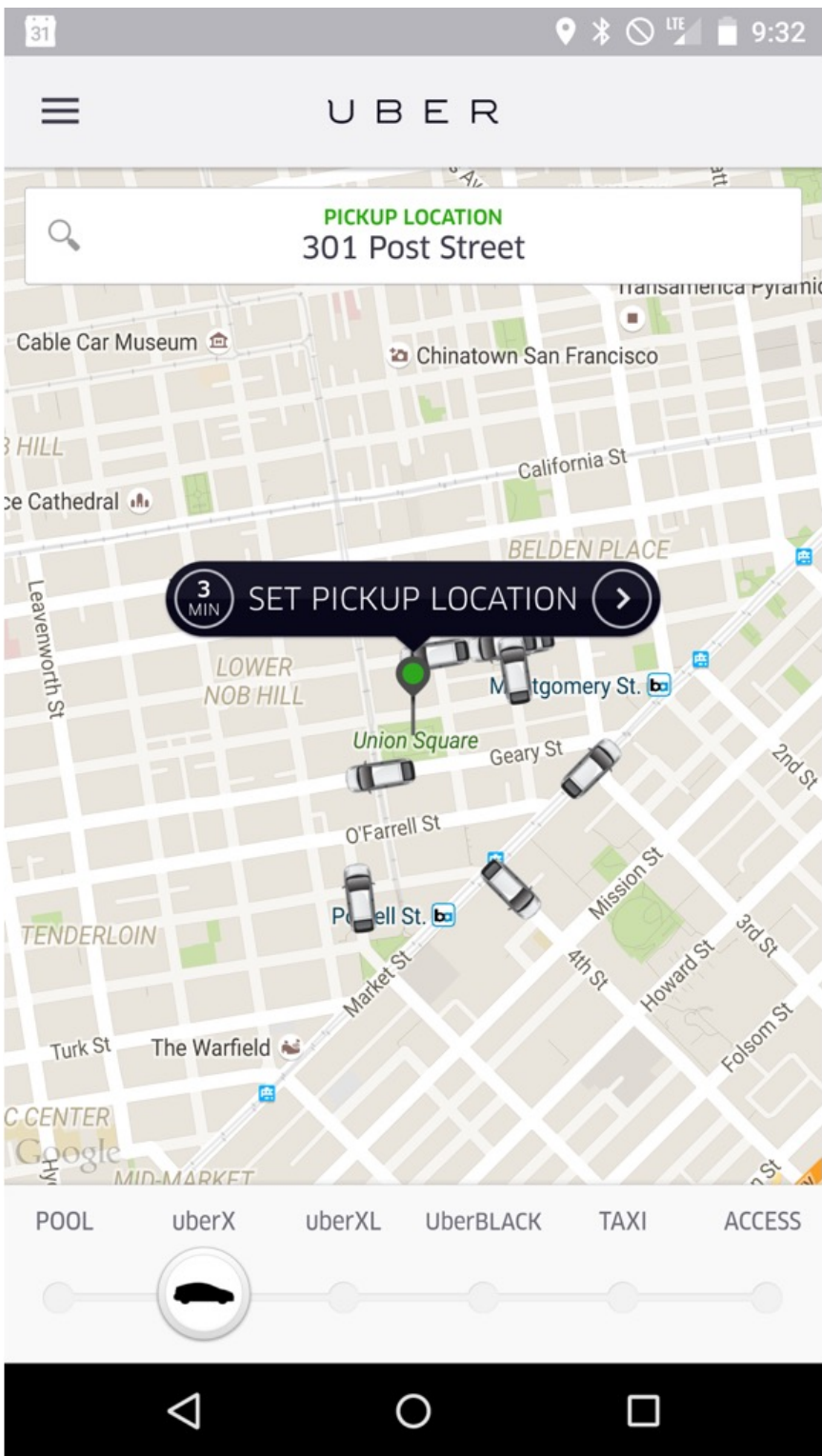
Sep 3rd 2016 | From the print edition

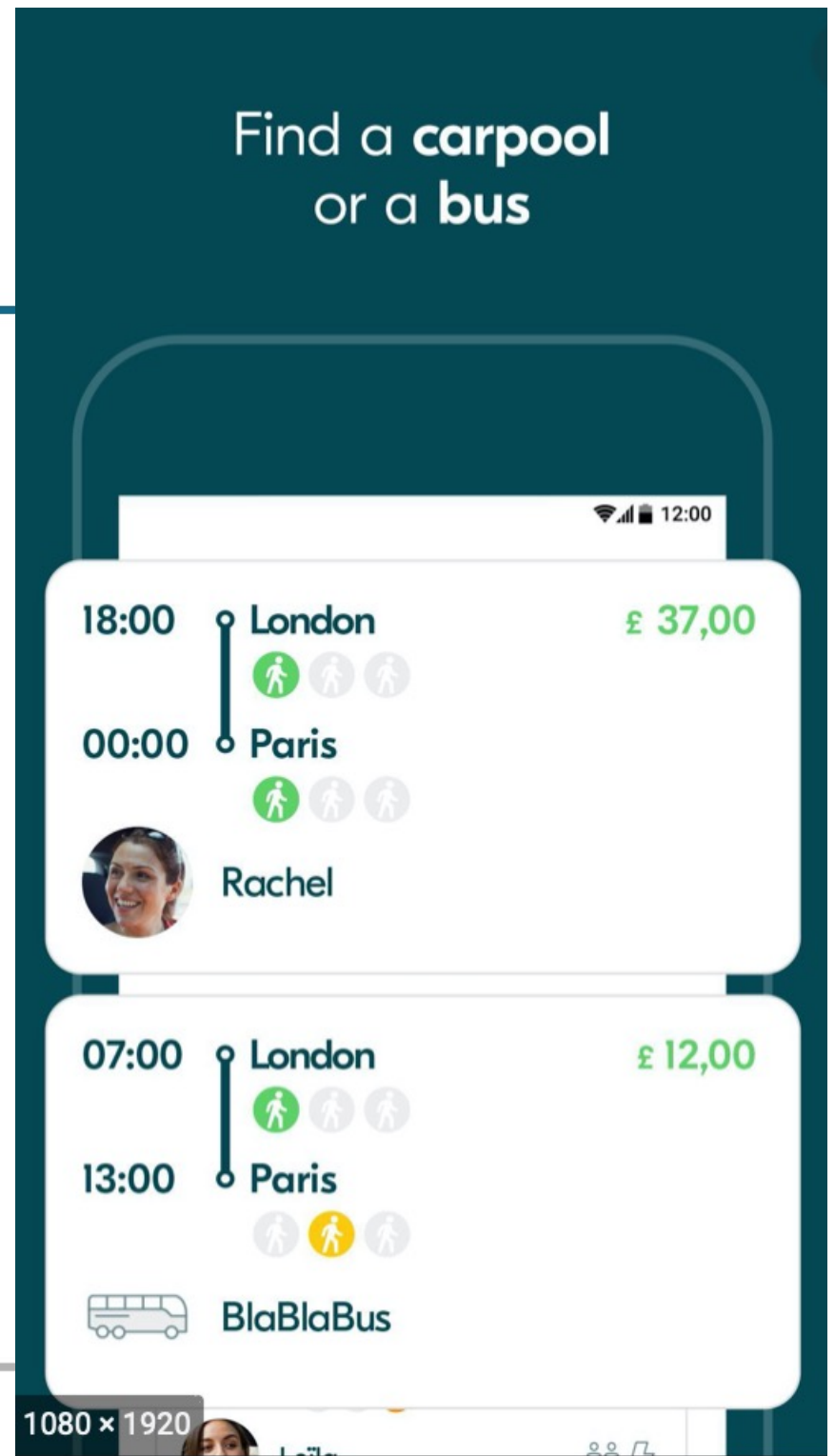
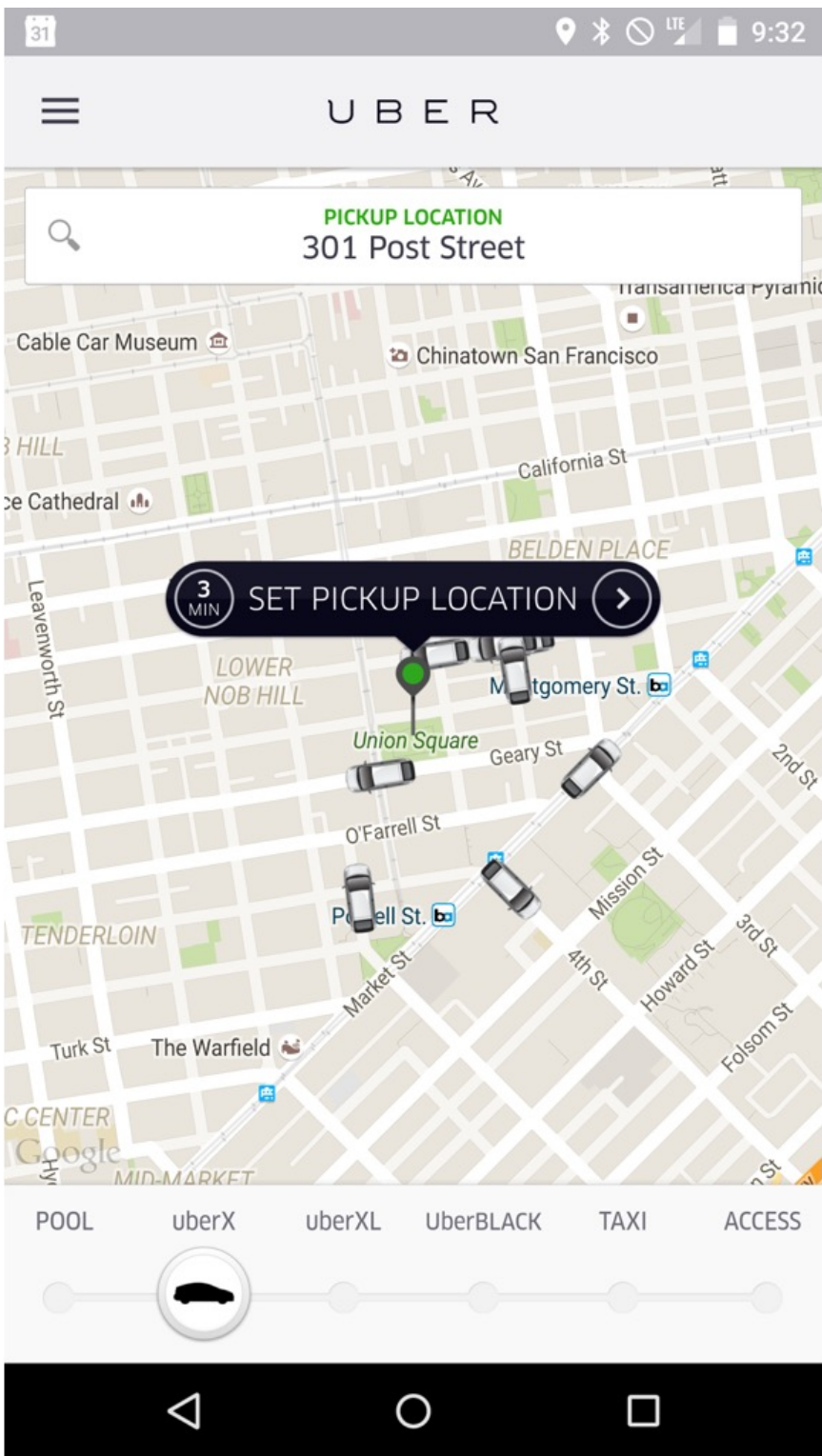
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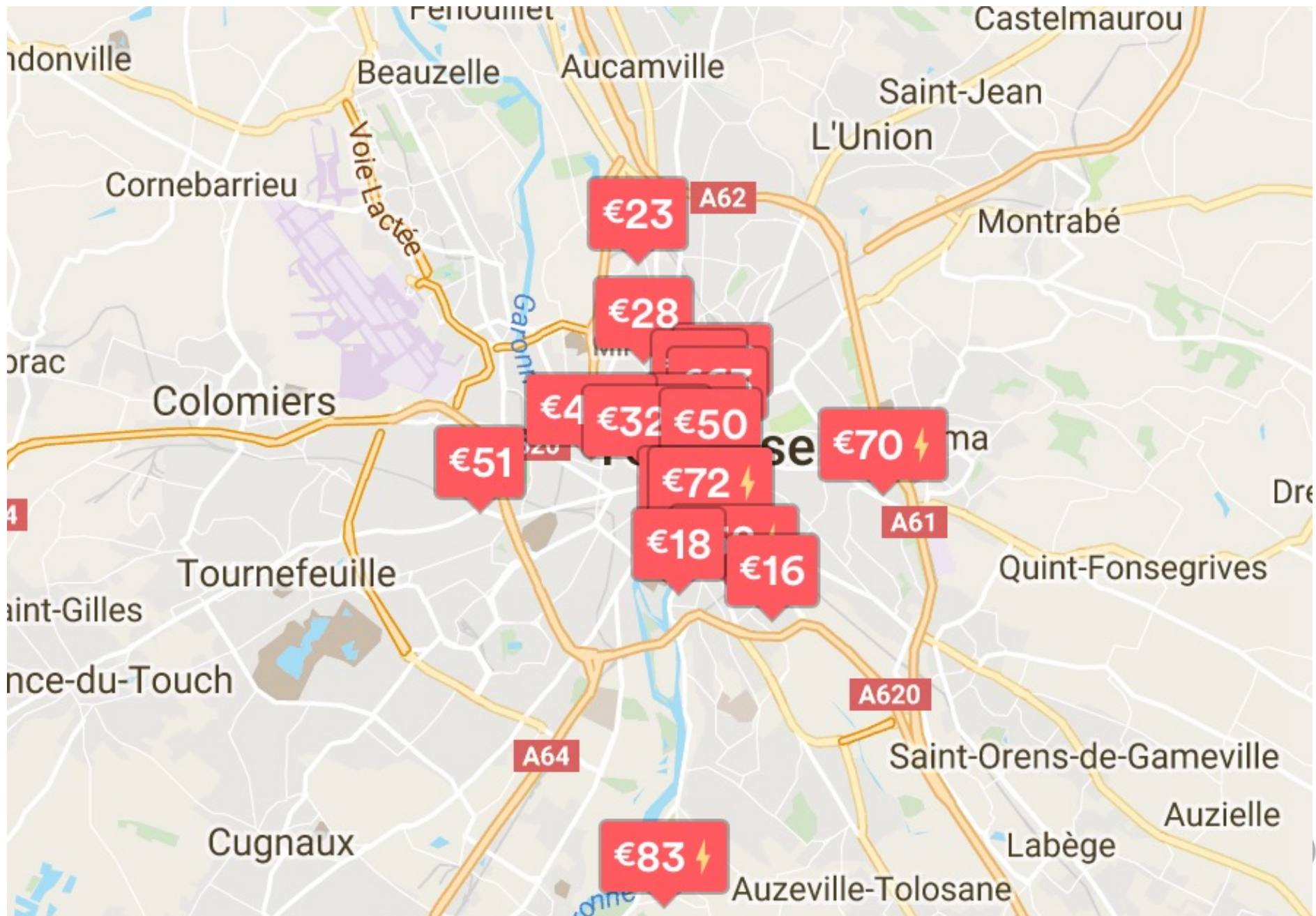
"LET'S Uber." Few companies offer something so popular that their name becomes a verb. But that is one of the many achievements of Uber, a company founded in 2009







And AirBnB?



And ISIS?

FINANCIAL TIMES

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October 14, 2015 12:50 pm

Isis Inc: how oil fuels the jihadi terrorists

Erika Solomon in Beirut, Guy Chazan and Sam Jones in London

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 Comments

The jihadis run a sprawling oil operation forcing even their enemies to do business with them

In a similar vein, what is a supply chain?

- In 1905, Western Electric Hawthorne Works factory in Cicero Illinois built 43,000 types of telephone equipment for Bell telephone company in over 100 buildings on one site. Only supplies purchased were raw materials such as Bakelite, rubber and metal.
 - Manufacture of Apple smartphones today involves R&D and engineering in US and Taiwan, and manufacturing in 43 countries. Final assembly is in China and India.
 - Smartphones are not exceptional: the Pfizer Covid vaccine involved 280 components from 26 firms in 19 countries.
 - Who has decision-making power in a supply chain?
-

How does digital technology affect the answers?

- Digital technology does not take decisions for us – it affects
 - the complexity of decisions that can be taken,
 - the content of the information that can be shared,
 - and the time delay in communicating the decisions that are taken.
 - In understanding why organizations take the form they do, and why this matters for economic and social outcomes, we should look for general principles that can explain outcomes both before and after digitization.
 - This course will attempt to formulate such general principles.
-

Some questions we may tackle during this course

- How will advances in artificial intelligence affect the structure of work?
- Should platforms be regulated like ordinary firms?
- How does the structure of authority within firms and other working organizations affect the motivation of those who work there?
- How can we understand the economic dimension of competition between charities, churches, armies or nation states?
- What are the likely consequences of recent calls for “decoupling” of the supply chains of American and European firms from China?



The methods we shall use:

- Game theory: the study of strategic interactions.
 - Psychology and behavioral economics – to illuminate:
 - The motives of decision makers;
 - The way they form beliefs;
 - The impact of decisions on their well-being.
 - Institutional and organizational economics – to illuminate the constraints decision makers face when they interact.
 - Tore Ellingsen's *Institutional and Organizational Economics: A Behavioral Game Theory Introduction*, is a good way to start thinking formally about these issues.
-

Let's distinguish different effects of digital technology on modern society (I)

- Creation, processing and sharing of information – the scarce resource is no longer information but ATTENTION
- Creation of new goods and services, from social networks and GPS guidance to... cat videos
- New methods for making and delivering existing goods and services
 - 3D printing
 - Delivery by drone
 - Internet dating, psychotherapy over Skype
 - Distributing the design and manufacture of cars and aircraft across the world
- The idea: **tasks can be broken into components and reassembled**

Let's distinguish different effects of digital technology on modern society (II)

- Creation of new types of organization
 - Outsourced tasks, micro-multinationals
 - Crowd-sourced financing, information gathering
 - Platforms – intermediaries between different user groups
- Improved methods of managing existing organizations
 - Using ICT to discover and reach new markets and sources of supply
 - Using ICT to monitor & improve management practices
 - Restructuring task allocation
- The mechanism: digital technology changes the pattern of substitutability/complementarity relations between task components

An example of unbundling and reassembling tasks: the impact of MOOCs (I)

- Bettinger et al: “Virtual Classrooms”, *AER* September 2017, investigate performance of 230,000 students taking 750 courses in a for-profit US college, in both on-line and on-campus versions
- On-campus versions of courses had fewer women (35% compared to 55%), and age of 28 years (33 years online)
- By instrumenting with the interaction of random non-availability of online versions and distance of residence from campus, estimate that courses with physical presence increase the probability of an A-grade by 12 percentage points
- The impact is concentrated on low-performing students

An example of unbundling and reassembling tasks: the impact of MOOCs (II)

- Key seems to lie in motivation, which is lower online
- It's a mistake to see education as a homogeneous service demanded by students
- Students demand at least two services: *understanding* and *motivation*, and the inputs into this process are *information* and *attention* – in proportions that differ between the two services
- Physical proximity is a special kind of attention – “close” attention
- We can see organizations as allocating ***entitlement to attention***

Organizations as allocators of entitlements to attention

- Coase saw the main distinction as between transactions inside versus transactions outside the firm (“hierarchies” versus “markets”).
- In fact, attention entitlements are not an all-or-nothing matter: there can be more or less priority entitlements.
- An organization does not accord equal priority to everyone inside to the attention of everyone else: instead, it allocates attention according to a set of escalating entitlement priorities.
- Outside the organization attention is allocated by bilateral negotiation under the constraints of a communication technology.

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US multinational manufacturing firms (from Fort, *Journal of Economic Perspectives* 2023):

Table 1

Sales, Employment, and Trade Flows for All US Firms that Manufacture In-house in 2007

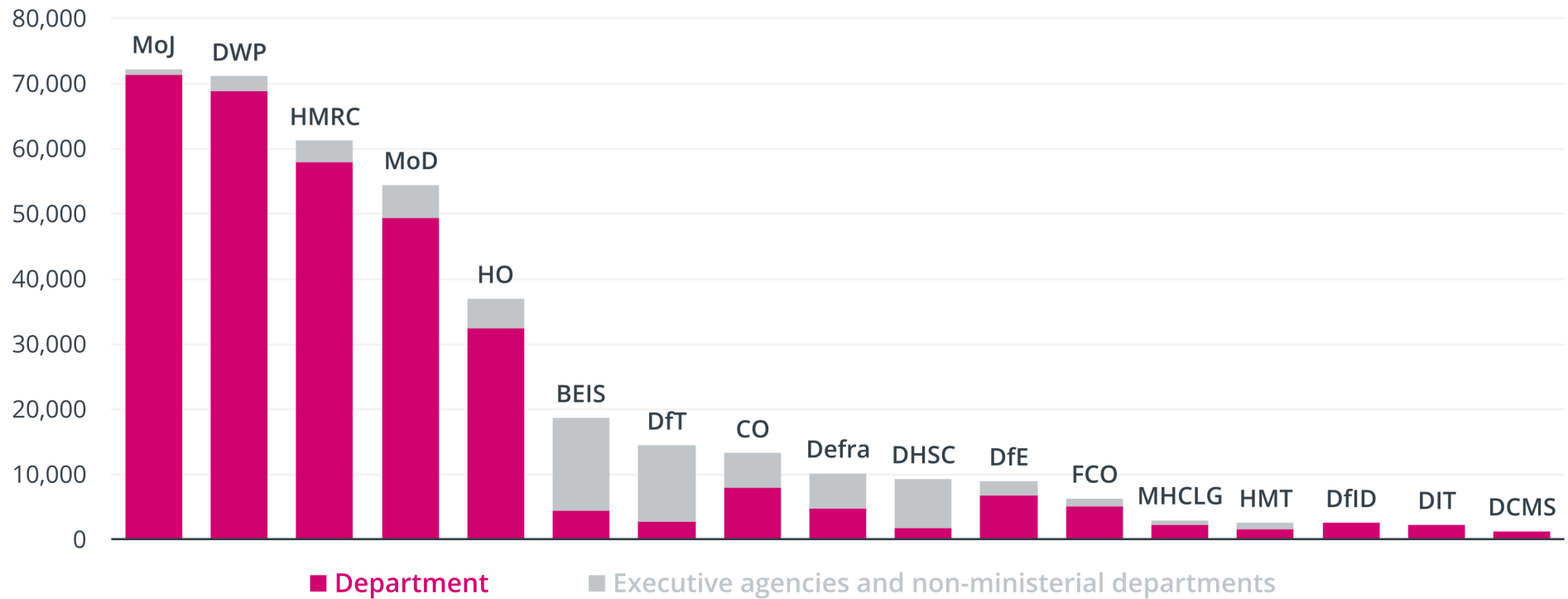
<i>Firm Type:</i>	<i>Domestic</i>	<i>Multinational</i>	<i>Multinational</i>	<i>Multinational</i>
<i>Majority-Owned Manufacturing Plants In:</i>	<i>US Only</i>	<i>US Only</i>	<i>US & Foreign</i>	<i>Foreign Only</i>
	(1)	(2)	(3)	(4)
Firms	242,000	350	1,200	150
<i>Panel A. Sales (\$billions)</i>				
Global Sales	2,629	1,695	6,710	345
Sales by US Establishments	2,629	1,446	3,853	173
Sales by Foreign Establishments	—	249	2,857	172
<i>Panel B. Employment (thousands)</i>				
Global Employment	11,059	5,338	11,883	732
Employment in US Establishments	11,059	4,349	6,556	361
Employment in Foreign Establishments	—	989	5,327	371
<i>Panel C. US Trade Flows (\$billions)</i>				
Imports	126	39	410	12
Arm's-Length	89	33	160	6
Related-Party	37	7	250	6
Exports	123	22	437	3
Arm's-Length	103	16	253	2
Related-Party	19	5	184	1

Source: 2007 Longitudinal Business Database, Economic Censuses, Longitudinal Firm Trade Transactions Database, BEA inward and outward surveys.

Employees of government departments

- EU Commission 33,000
 - UK Home Office 34,000
 - US State Department 75,000
 - United Nations Secretariat 41,000
 - US Department of Transportation 55,000
 - Mairie de Paris 53,000
-

Civil service staff numbers (FTE) by department (including other organisations), March 2020



Source: Institute for Government analysis of ONS, Public Sector Employment (table 9), Q1 2020. Note that 'department' includes public bodies that are directly line-managed.

Table G. Distribution of private sector firms by size class: 1993/Q1 through 2019/Q1, not seasonally adjusted

First Quarter	Size Class								
	1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 or more employees
	Levels (in thousands)								
1993	2,311	913	535	334	110	61	18	8	8
1994	2,344	928	547	345	113	64	19	9	8
1995	2,382	941	559	355	118	67	20	9	9
1996	2,407	947	565	360	120	68	20	9	9
1997	2,453	959	575	369	122	70	21	10	9
1998	2,468	961	579	373	124	72	22	10	10
1999	2,510	975	588	379	127	73	22	11	10
2000	2,516	983	600	388	130	75	23	11	10
2001	2,534	980	600	388	130	75	23	11	10
2002	2,554	984	598	385	127	73	22	11	10
2003	2,601	990	600	383	125	72	22	10	10
2004	2,642	1,003	606	387	127	73	22	10	10
2005	2,690	1,007	611	392	129	75	23	11	10
2006	2,768	1,018	621	401	133	76	23	11	10
2007	2,801	1,020	624	403	134	77	23	11	10
2008	2,804	1,006	615	400	133	77	23	11	10
2009	2,742	967	588	377	124	72	22	10	10
2010	2,704	946	572	365	120	70	21	10	9
2011	2,726	945	574	369	122	72	22	11	10
2012	2,731	957	584	378	126	74	22	11	10
2013	2,754	961	591	385	127	75	23	11	10
2014	2,782	968	602	395	129	77	23	12	10
2015	2,812	974	611	405	132	78	24	12	11
2016	2,854	982	622	415	135	79	24	12	11
2017	2,886	987	630	421	137	80	25	12	11
2018	2,904	991	635	426	138	81	26	12	11
2019	2,947	992	639	430	140	83	26	13	12
	Shares (percent)								
1993	53.76	21.24	12.44	7.77	2.55	1.41	0.41	0.18	0.18
1994	53.55	21.20	12.49	7.88	2.58	1.46	0.43	0.20	0.18
1995	53.40	21.09	12.53	7.96	2.64	1.50	0.44	0.20	0.20
1996	53.43	21.02	12.54	7.99	2.66	1.50	0.44	0.20	0.20
1997	53.46	20.90	12.53	8.04	2.65	1.52	0.45	0.21	0.19
1998	53.43	20.80	12.53	8.07	2.68	1.55	0.47	0.21	0.21
1999	53.46	20.76	12.52	8.07	2.70	1.55	0.46	0.23	0.21
2000	53.12	20.75	12.66	8.19	2.74	1.58	0.48	0.23	0.21
2001	53.33	20.62	12.62	8.16	2.73	1.57	0.48	0.23	0.21
2002	53.61	20.65	12.55	8.08	2.66	1.53	0.46	0.23	0.21
2003	54.04	20.56	12.46	7.95	2.59	1.49	0.45	0.20	0.20
2004	54.13	20.55	12.41	7.93	2.60	1.49	0.45	0.20	0.20
2005	54.36	20.35	12.34	7.92	2.60	1.51	0.46	0.22	0.20
2006	54.69	20.11	12.27	7.92	2.62	1.50	0.45	0.21	0.19
2007	54.88	19.98	12.22	7.89	2.62	1.50	0.45	0.21	0.19
2008	55.20	19.80	12.10	7.87	2.61	1.51	0.45	0.21	0.19
2009	55.82	19.68	11.97	7.67	2.52	1.46	0.44	0.20	0.20
2010	56.13	19.63	11.87	7.57	2.49	1.45	0.43	0.20	0.18
2011	56.19	19.48	11.83	7.60	2.51	1.48	0.45	0.22	0.20
2012	55.81	19.55	11.93	7.72	2.57	1.51	0.45	0.22	0.20
2013	55.78	19.46	11.97	7.79	2.57	1.51	0.46	0.22	0.20
2014	55.66	19.36	12.04	7.90	2.58	1.54	0.46	0.24	0.20
2015	55.58	19.25	12.07	8.00	2.60	1.54	0.47	0.23	0.21
2016	55.59	19.12	12.11	8.08	2.63	1.53	0.46	0.23	0.21
2017	55.61	19.02	12.14	8.11	2.64	1.54	0.48	0.23	0.21
2018	55.59	18.97	12.15	8.15	2.64	1.55	0.49	0.23	0.21
2019	55.79	18.78	12.09	8.14	2.65	1.57	0.49	0.24	0.22

Source: U.S. Bureau of Labor Statistics

Charitable foundations [edit]

Main article: List of wealthiest charitable foundations

Organization	Worth [billion USD]	Country
Novo Nordisk Foundation	49.1 ^[1]	 Denmark
Bill & Melinda Gates Foundation	46.8 ^[2]	 United States
Stichting INGKA Foundation	36.0	 Netherlands
Wellcome Trust	27.1	 United Kingdom
Howard Hughes Medical Institute	23.8	 United States
Azim Premji Foundation	21.0	 India
Garfield Weston Foundation	15.7	 United Kingdom
Ford Foundation	13.7	 United States
Silicon Valley Community Foundation	13.6	 United States

Religious Organizations [edit]

Organization	Worth [billion USD]	Country	Notes
Catholic Church	Unknown	 Vatican City	^[3]
The Church of Jesus Christ of Latter-Day Saints	80.0 (alleged to be as much as 160.0 billion)	 United States	^[4]
Catholic Church in Germany	26.0	 Germany	^[5]
Protestant Church in Germany	25.0	 Germany	^[6]
Catholic Church in Australia	20.5	 Australia	^[7]
Church of England	7.8	 United Kingdom	^[8]
Opus Dei (part of the Catholic Church)	2.0	 Italy	^[9]
Catholic Church in the Philippines	2.0	 Philippines	^[10]
Church of Scientology	2.0	 United States	^[11] ^[12]

Educational institutions [edit]

See also: List of colleges and universities in the United States by endowment

Organization	Worth (billion USD)	Country	Notes
Harvard University	37.6	 United States	See Harvard University endowment
Yale University	25.6		N/A
University of Texas System	24.1		^[13]
Princeton University	22.7		^[13]
Stanford University	22.2		^[13]