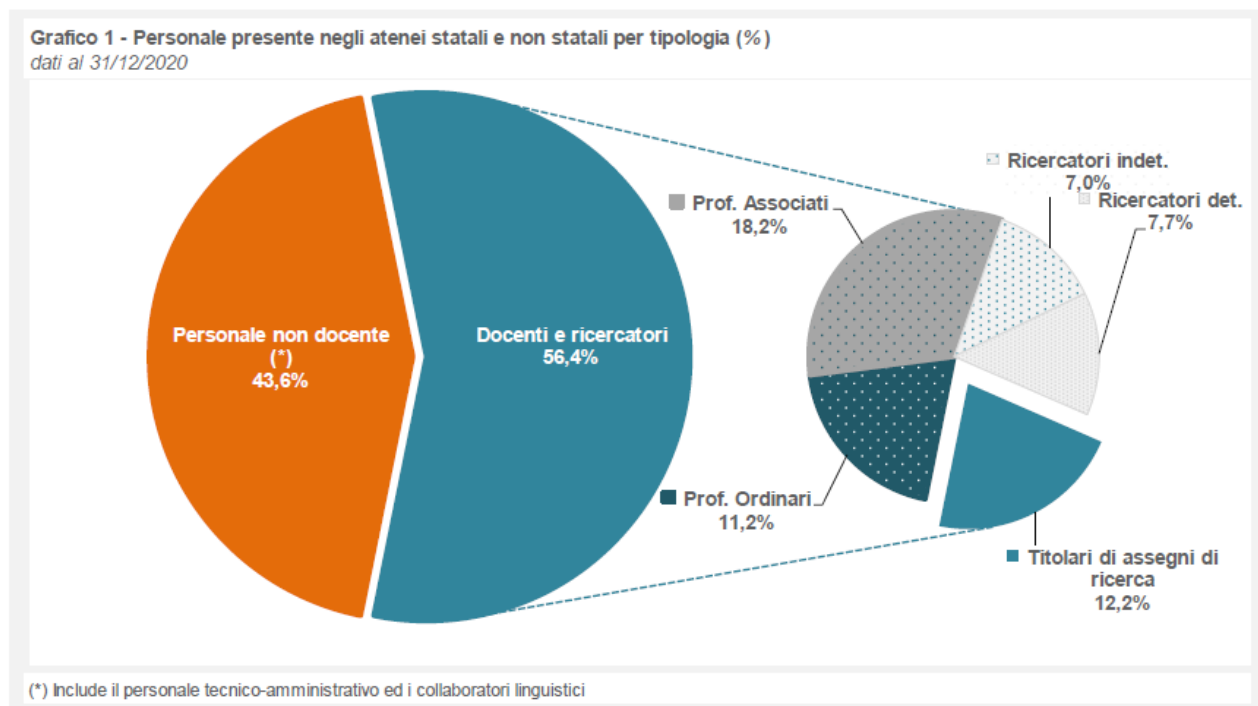


ELENCO 1

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante



DOMANDA 2

Il candidato illustri le modalità di costruzione e le principali caratteristiche della tabella di contingenza elaborata per le variabili relative alla categoria e al titolo di studio del personale tecnico amministrativo.

DOMANDA 3

Descrivere le funzioni di calcolo condizionale (in Excel o Access)

ACCERTAMENTO LINGUA INGLESE:

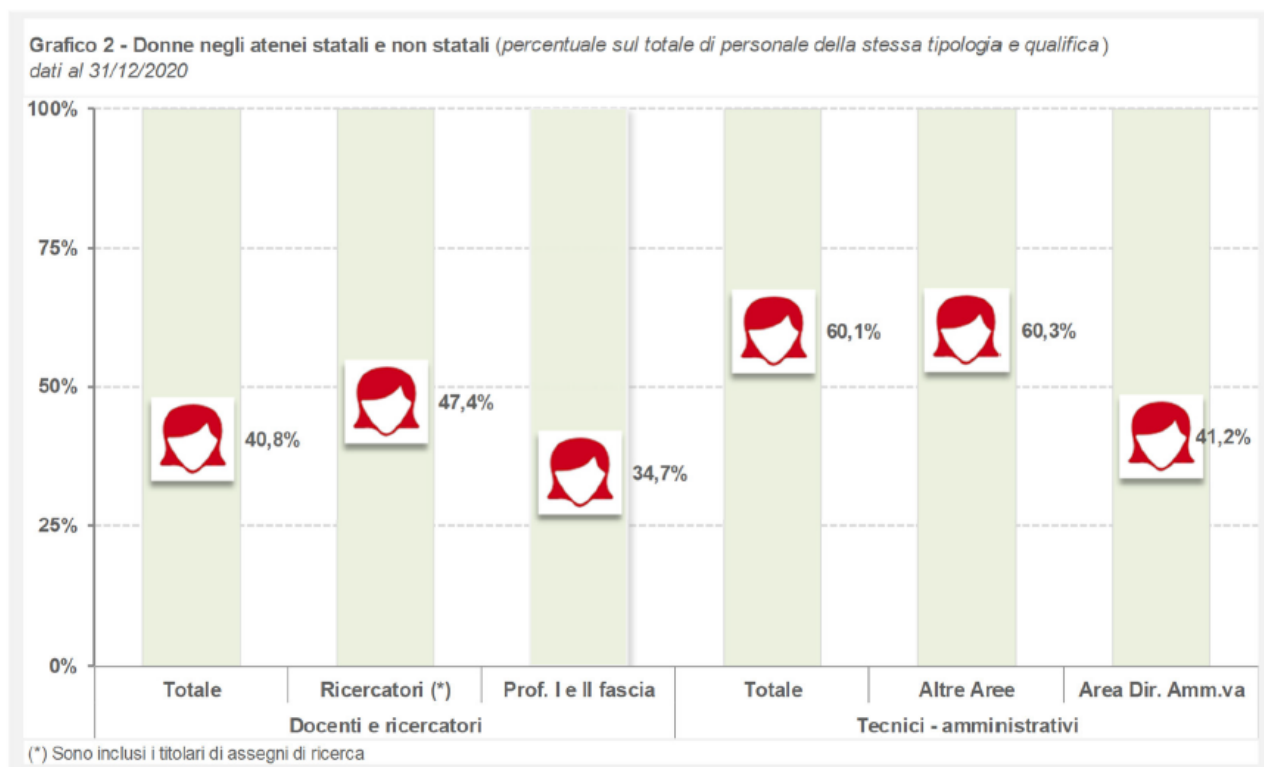
"First, let's discuss the Great Resignation (which I call The Great Migration). People are quitting their companies, changing careers, and upgrading their jobs as fast as I've ever seen. If you believe the BLS statistics (which are based on surveys), almost a third of the US workforce will "quit" this year, amounting to more than 4 million people every month.

Where are these people going? It depends. Lots of healthcare workers are taking a break from the profession, but new research shows that Millennials (mid-career professionals) are just leaving their jobs to find a better one. Wages are going up at a rate I've never seen, and it's touching every job – from frontline retail workers to hospitality, white-collar, and professionals. (Conference Board expects the biggest year of raises in a decade.)"

ELENCO 2

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante



DOMANDA 2

Il candidato descriva i principali strumenti di elaborazione ed eventuali test statistici per valutare la relazione tra due variabili quantitative quali il numero di ore di straordinario effettuate e il punteggio di valutazione della performance del personale nell'anno 2021.

DOMANDA 3

Descrivere la Tabella Pivot (in Excel o Access).

ACCERTAMENTO LINGUA INGLESE:

"Two colliding reasons. First, of course, the pandemic has freaked everyone out. More than 80% of workers are suffering from mental health issues (I just had a short vacation and had to wear a mask for eight hours and feel a bit traumatized myself), so they're re-examining their lives. And this is a good thing. As I've discussed in many of our research studies, great careers are built by "sampling." People who move around, try lots of different jobs, and discover what they're good at – outperform those who stay put.

But there's another big reason: the economy is on a tear. And I mean an incredible one. I'm not sure I've ever seen a jump in demand like this. It's almost as if two years of pandemic has unleashed a massive demand for everything: food, houses, entertainment, healthcare, everything. I can't find an industry (except those

directly impacted by covid) that isn't seeing massive demand. So there are lots of great jobs out there. (The unemployment rate is now 3.9% and dropping.)”

ELENCO 3

DOMANDA 1

Il candidato descriva e commenti la tabella sottostante

Tavola 1 - Personale docente e non docente degli atenei statali e non statali per tipologia - A.A. 2010/11 - 2020/21

Anno Accademico	Personale docente e ricercatore			Personale tecnico - amministrativo		Totale
	Prof. Ordinari, Prof. Associati, Ricercatori ⁽¹⁾	Titolari di assegni di ricerca	Collaboratori linguistici	a tempo indeterminato	a tempo determinato	
2010/11	58.885	13.109	1.857	57.742	2.674	134.267
2011/12	57.996	13.370	1.864	56.453	2.804	132.487
2012/13	57.196	15.747	1.790	55.164	2.761	132.658
2013/14	56.369	16.280	1.809	54.966	2.675	132.099
2014/15	55.404	15.909	1.741	54.525	2.673	130.252
2015/16	54.469	14.042	1.727	53.682	2.249	126.169
2016/17	54.235	13.946	1.713	53.396	2.305	125.595
2017/18	53.793	14.124	1.676	52.706	2.500	124.799
2018/19	54.262	14.105	1.627	52.430	2.173	124.597
2019/20	55.426	14.459	1.580	52.088	2.052	125.605
2020/21	56.053	15.489	1.556	51.750	2.087	126.935
Variazione % 2010/11 - 2020/21	-4,8%	18,2%	-16,2%	-10,4%	-22,0%	-5,5%

⁽¹⁾ Ricercatori a tempo indeterminato e determinato

DOMANDA 2

Il candidato descriva i principali indici di variabilità statistica per analizzare l'eterogeneità del punteggio di valutazione della performance del personale tecnico amministrativo nell'anno 2021.

DOMANDA 3

Criteri di scelta dell'applicazione Office per la gestione e analisi di una base dati.

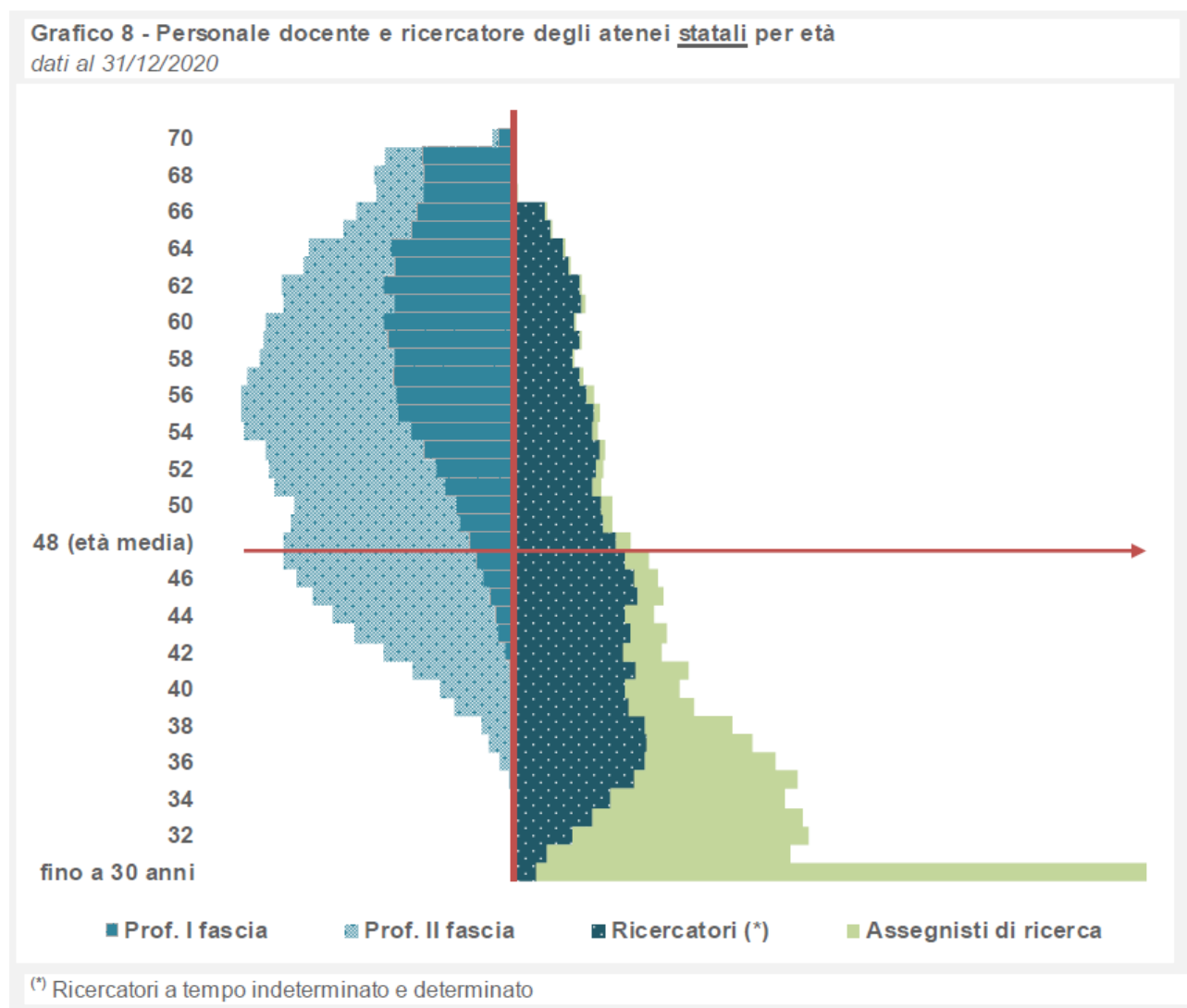
ACCERTAMENTO LINGUA INGLESE:

"So that's it: lots of jobs and not enough people, right? Should we just wait for more babies to be born and ask older people to come back to work? Sure these are all good ideas, but there's something else going on too. And this, to me, is the really big story: the big migration. As I wrote about a few weeks ago, workers are not just moving to better jobs and better companies, the entire economy is transforming. And fast. So let me dig into this topic. For more than a decade analysts have been writing about the role of automation on work. Years ago academics at Oxford predicted that almost half the jobs of today would be "going away." Well, they didn't go away at all, they just moved. They changed. And this job or work transformation is now happening at light speed. And the culprit is our old friend, technology."

ELENCO 4

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante



DOMANDA 2

Il candidato descriva i principali strumenti statistici per l'analisi bivariata tra due variabili quali il numero di ferie residue del personale al 31/12/21 e la categoria professionale del personale tecnico amministrativo.

DOMANDA 3

Illustrare le principali funzioni statistiche (in Excel o Access).

ACCERTAMENTO LINGUA INGLESE:

"For most of the last ten years, companies have been going through what we used to call a "digital transformation." In the early stages, this meant "learning how to use the web" and "building apps and websites to reach our customers." The old back-office mainframe infrastructure we had got disrupted, so companies went out and hired consultants to help. And the consultants (I was one of them) went into companies and taught them how to build cloud-based applications, how to build apps, how to replace





















































































legacy systems with cloud systems, and how to build expertise in design, software engineering, and data. The old saying “software is eating the world” pretty much meant “let’s automate everything,” and that’s our “digital transformation.”

ELENCO 5

DOMANDA 1

Il candidato descriva e commenti la tabella sottostante

Tavola 4 - Età media del personale docente e ricercatore degli atenei statali per area scientifico disciplinare e qualifica
dati al 31/12/2020

Area Scientifico Disciplinare	Prof. Ordinari	Prof. Associati	Ricercatori a tempo indeterminato	Ricercatori a tempo determinato	Titolari di assegni di ricerca	Media per Area SD
Sc. matematiche e informatiche	 57,0	 50,2	 52,0	 37,2	 32,1	 47,1
Sc. fisiche	 58,3	 51,6	 54,7	 38,3	 32,7	 46,0
Sc. chimiche	 58,6	 51,6	 52,1	 38,3	 31,5	 46,7
Sc. della terra	 59,5	 53,6	 54,7	 39,8	 34,8	 48,7
Sc. biologiche	 59,8	 53,0	 54,5	 40,4	 33,9	 47,9
Sc. mediche	 60,9	 54,8	 56,8	 39,7	 35,2	 50,5
Sc. agrarie e veterinarie	 59,6	 53,0	 53,7	 39,5	 33,9	 48,5
Ingegneria civile e Architettura	 58,7	 53,1	 54,0	 40,4	 33,9	 47,4
Ingegneria industriale e dell'informazione	 56,9	 49,6	 50,9	 37,6	 31,4	 42,9
Sc. dell'antichità, filologico-letterarie e storico-artistiche	 59,9	 53,1	 53,8	 41,7	 36,0	 50,2
Sc. storiche, filosofiche, pedagogiche e psicologiche	 59,8	 52,2	 52,4	 41,3	 36,1	 49,0
Sc. giuridiche	 56,6	 49,7	 51,5	 39,0	 34,1	 49,3
Sc. economiche e statistiche	 55,9	 49,4	 50,5	 38,3	 33,8	 47,5
Sc. politiche e sociali	 58,6	 51,7	 52,6	 42,4	 37,0	 48,4
Media per qualifica	58,4	52,0	53,6	39,5	33,6	47,8
Dev. Standard (σ)	1,4	1,6	1,7	1,5	1,7	1,8



Età media < (Media qualifica - σ)

(Media qualifica - σ) <= Età media < (Media qualifica + σ)

Età media >= (Media qualifica + σ)

DOMANDA 2

Il candidato descriva le principali tipologie di statistiche descrittive calcolabili per una variabile quantitativa quale il totale delle ferie residue non godute del personale tecnico amministrativo al 31/12/21 e le possibili considerazioni.

DOMANDA 3

Tabelle, query, tipi di relazioni tra tabelle.

ACCERTAMENTO LINGUA INGLESE:

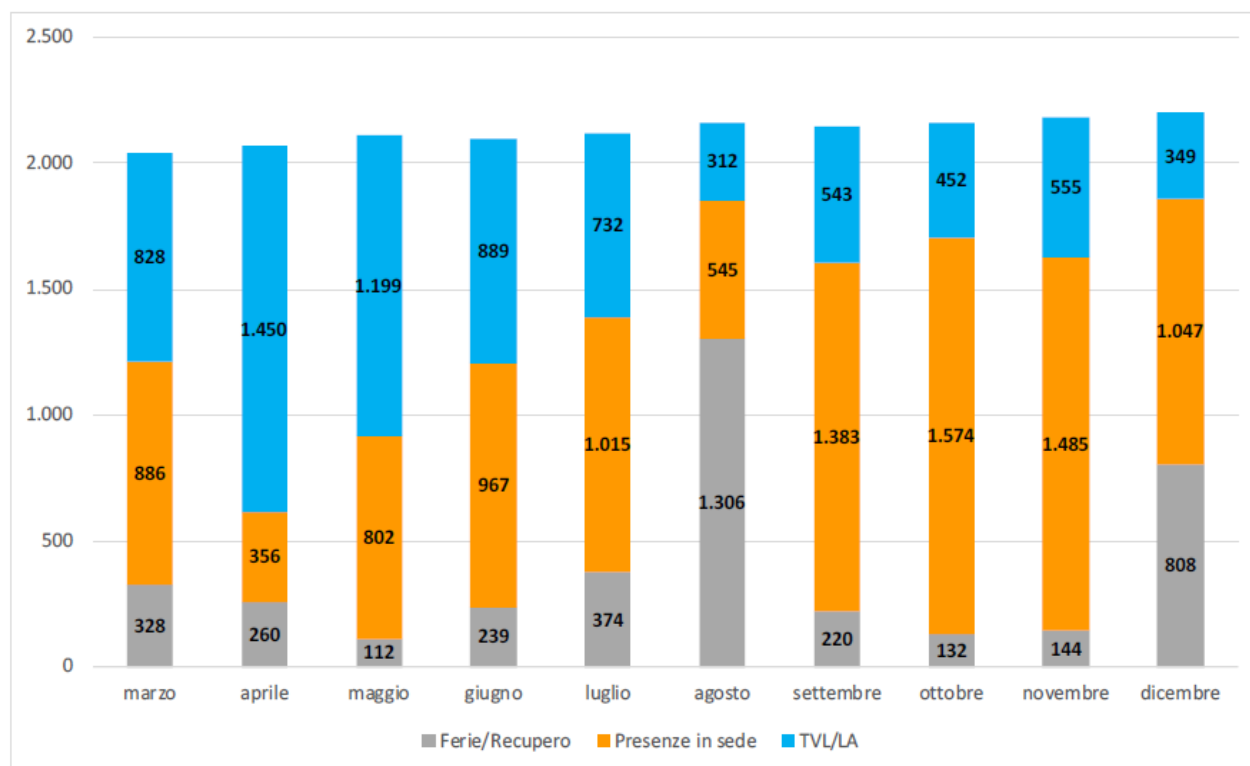
“The examples are everywhere. Starbucks’ app lets you buy, pre-order, get points, and soon listen to music. Most retailers sell their products through Omnichannel, and you can go to the store and safely pick up what you ordered online. Food, entertainment, music, consumer products – they’re all now available online. And frankly, this is no longer state of the art: it’s just the way we do business. This shift created a huge demand for software engineers, data scientists, and now AI engineers. So these job families exploded with growth and wages went up. Along with the growth came a new industry of digital academies, bootcamps, educational offerings, degrees, and online learning. All good stuff. If you’re a nurse, truck driver, or retail worker, this made your job better. You can now focus on the people side of your job and the app and online system handles the administrative stuff. And if you’re interested in data, you can start to analyze all this data and get even better at your job. And this particular workforce transformation has been going on for five years or more.”

ELENCO 6

DOMANDA 1

Il candidato descriva e commenti la tabella sottostante

Grafico 2.3: un dato medio mensile relativo alla numerosità del personale in servizio in presenza, in modalità agile e in ferie/recupero MOI nel periodo marzo-dicembre 2020



Fonte: Le Politiche 2016-2020 per il Personale TA, in breve Amministrazione Centrale - Area Risorse Umane

DOMANDA 2

Il candidato descriva le principali fasi per la costruzione di un questionario per la rilevazione dell'equilibrio tra lavoro e vita privata del personale.

DOMANDA 3

Collegamenti con fonti di dati esterne.

ACCERTAMENTO LINGUA INGLESE:

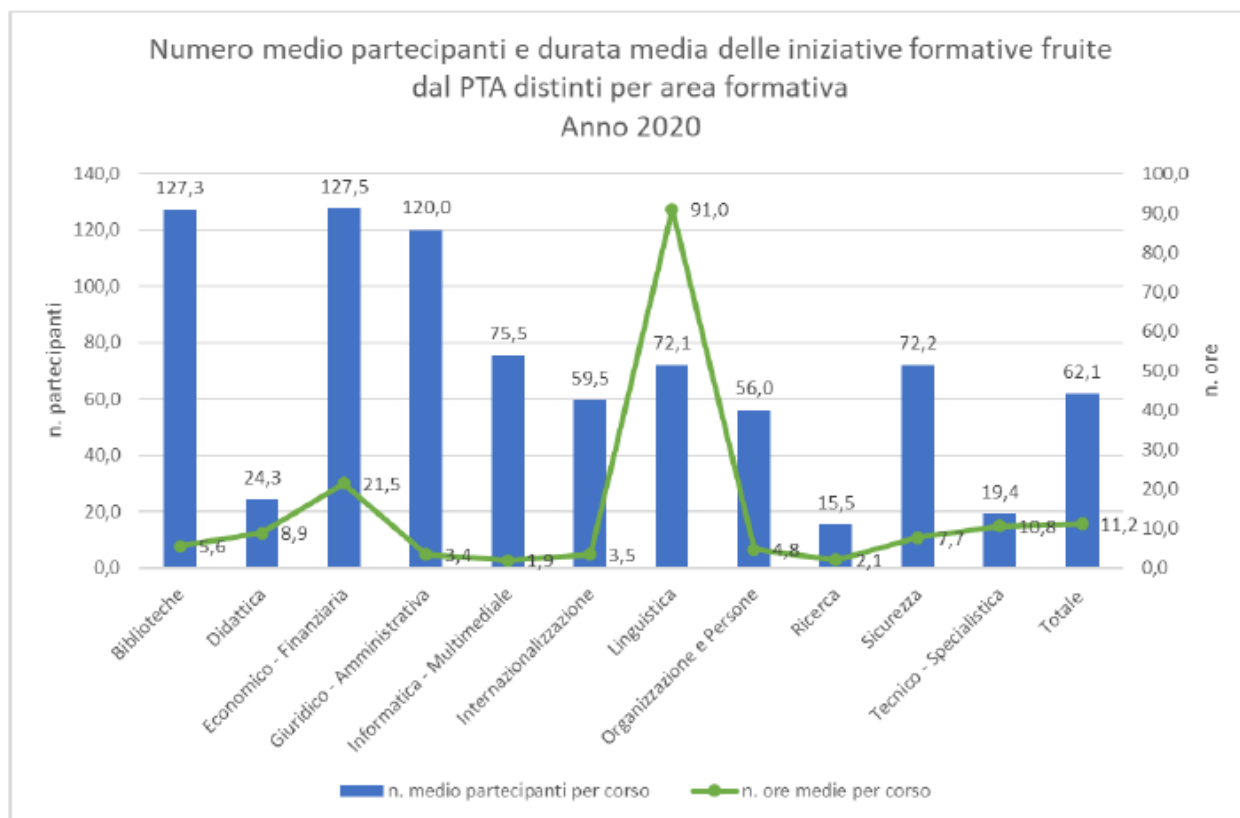
"We have been studying HR technology projects for years and they can be complex and risky. Companies tend to upgrade or replace of their core HCM technology every 7-8 years and when they do it's a massive change. Not only is it expensive and time-consuming, but these projects can interrupt business growth and take attention from the CEO, CIO, and CHRO. Well over the last year we completed a series of large studies on HCM implementations and learned about what works. This week we're launching this new research, HCM Excellence: The Definitive Guide, which reveals many of the secrets. HCM Projects Are Not Implementations: They're Transformations. Let's start at the beginning. Why do companies change their core HR platforms every 7-8 years? One big reason: the technologies evolve and older systems hold companies back."

ELENCO 7

DOMANDA 1

Il candidato descriva e commenti la tabella sottostante

Grafico 4 – N. medio di partecipanti PTA ad attività formative e durata media delle iniziative formative per area di formazione



DOMANDA 2

Il candidato illustri gli strumenti statistici per valutare la bontà di adattamento di un modello di regressione lineare semplice che metta in relazione lo stipendio annuo lordo di un docente con l'età anagrafica.

DOMANDA 3

Linguaggio programmazione in Office .

ACCERTAMENTO LINGUA INGLESE:

"In the last decade we've gone through three big changes:

Integrated talent management: In the early 2000s these systems were designed as process automation tools. Companies bought PeopleSoft, Oracle, SuccessFactors, or Workday with the intention of automating talent management practices. Shifting investment from in-house systems, companies were relieved to buy products in the cloud and turn over the software upgrades to vendors.

Systems of engagement: In the mid-2000s vendors focused on the needs of employees, not just HR. New applications like self-service, mobile access, journey tools, and AI-enabled chatbots became available. These

“experience centric” systems were intended to help employees and managers do their jobs better, so the center of gravity shifted.

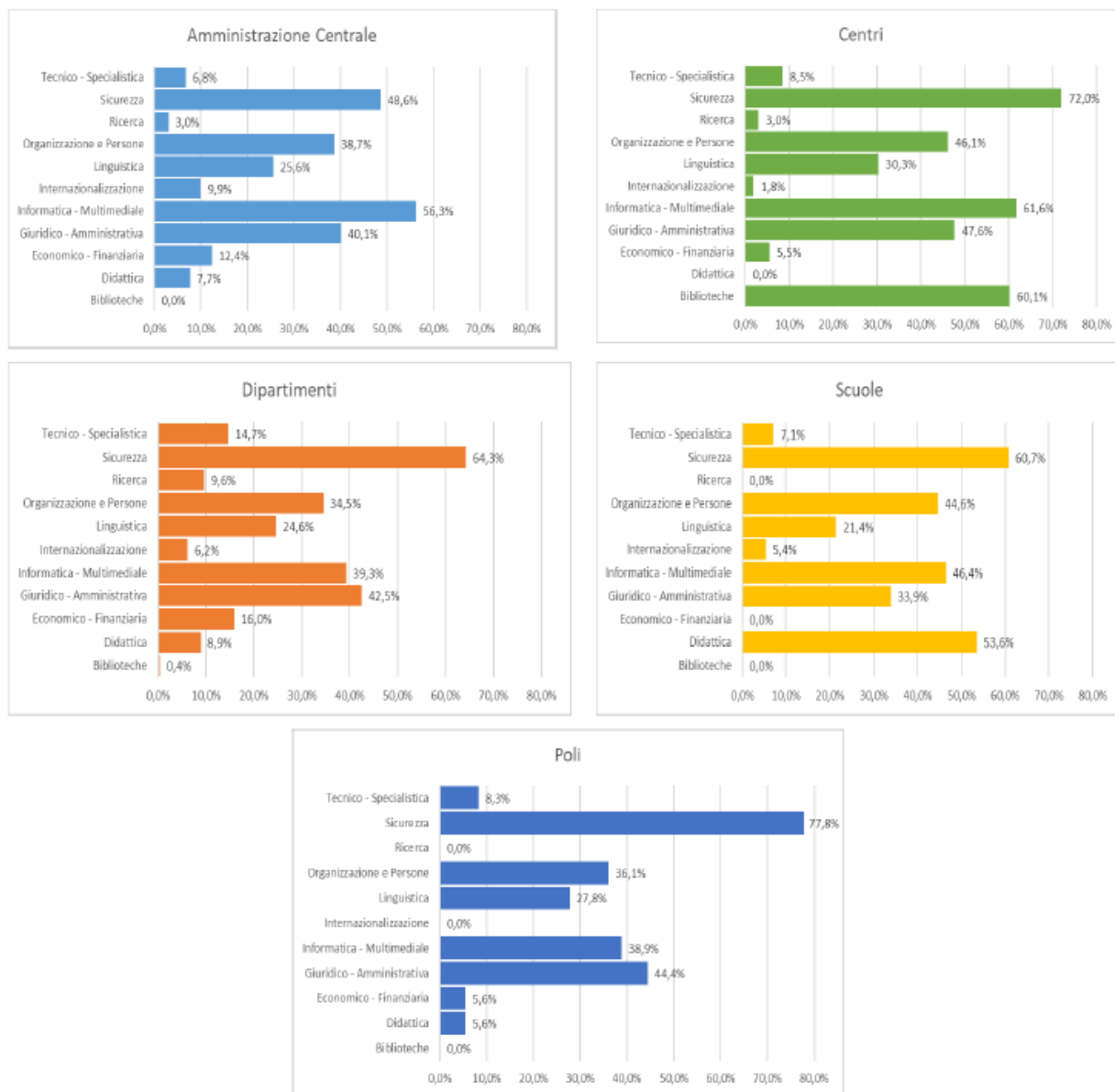
Intelligent systems of work: Today we’re in the third wave: HCM systems to facilitate hybrid work, support employees working at home (or remotely), and enable HR practices in the flow of work. Today’s HCM platforms are not only transaction and employee experience systems, they’re real-time analytics systems, predictive performance tools, and employee voice systems to help employees speak up as work needs change.”

ELENCO 8

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante

Grafico 6 – Percentuale del PTA formato, suddiviso per macrostruttura, distinto per area di formazione



DOMANDA 2

Il candidato illustri le possibili metodologie di campionamento per effettuare un'indagine che rileva rilevare la conciliazione dei tempi vita-lavoro dei propri dipendenti.

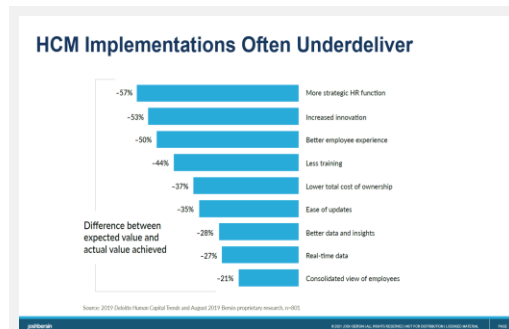
DOMANDA 3

Illustrare le principali funzioni presenti nella Sezione Dati in Excel.

ACCERTAMENTO LINGUA INGLESE:

“Are Expectations Met? Often Not.

In 2018 and 2019 we asked more than 800 companies about their success with these projects and the results were underwhelming. As you can see, most buyers do feel that their project's did not deliver as hoped. This is not to say they were a failure, but the expectations far exceed reality.



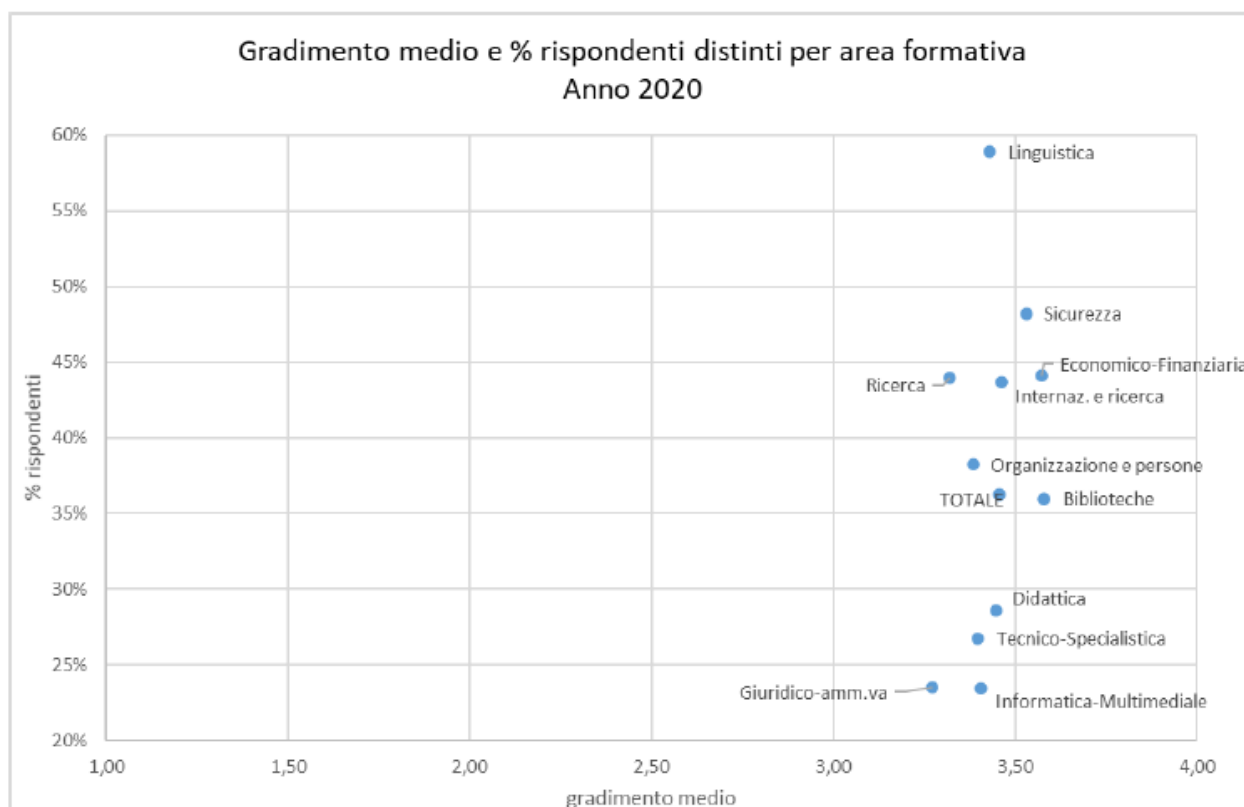
Some of this is the result of vendors overselling what they do. Many vendors convince their customers their system will make their company more agile. Of course, integrated data is can definitely improve decision-making, but many of the promised improvements fall on the shoulders of your management, not the software vendor's system. I remember years ago talking with Bob Epstein, the founder of Sybase. He used to joke that "a legacy system is one that works." In other words, don't just assume that the new system will automatically be better than one you've been customizing for years. You have to redesign your company to use the new technology you buy."

ELENCO 9

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante

Grafico 8 – Gradimento medio e % rispondenti per area formativa



DOMANDA 2

Il candidato descriva i principali strumenti di analisi ed eventuali test statistici per valutare la relazione tra due variabili categoriali quali la qualifica del personale docente e il genere.

DOMANDA 3

Descrivere le funzioni di ricerca e riferimento (in Excel o Access).

ACCERTAMENTO LINGUA INGLESE:

“Buying A New HCM System Is Like Buying A House

Think about a new HCM system like moving into a new house. When you buy a new house, you expect a lot of good things to happen. You'll have more room, you'll gain a better layout, the closets will be bigger, and maybe the schools and neighborhood are better too. But as everyone knows about a new house, there are always trade-offs. No house is perfect; there are roof leaks or foundation cracks you didn't notice, and the new neighborhood has its own issues. Of course, we always love our new house, but it takes time and attention to “make it ours.” This is what HCM implementations are like. You're not “implementing a system” you're “preparing to live in a new house.” So if you aren't clear on what you want to accomplish, you may find the house unsettling. And as with a new house, you have to paint it, furnish it, and maybe even do some remodeling.”

ELENCO 10

DOMANDA 1

Il candidato descriva e commenti la tabella sottostante

RAPPORTO DI FEMMINILITÀ PER AREA CUN (CONFRONTO ANNI 2013, 2016 E 2019)

RAPPORTO DONNE- UOMINI	Valore compreso tra
meno di 1 donna ogni 8 uomini	0
da 1 donna ogni 8 uomini ad 1 donna ogni 4 uomini	0,125
da 1 donna ogni 4 uomini ad 1 donna ogni 2 uomini	0,25
da 1 donna ogni 2 uomini ad 1 donna ogni uomo	0,5
1 donna ogni uomo	1
da 1 donna per ogni uomo a 3 donne ogni 2 uomini	1,00
da 3 donne ogni 2 uomini a 2 donne ogni uomo	1,5
pù di 2 donne ogni uomo	>2

	RTD		RTI			PA			PO		
	2016	2019	2013	2016	2019	2013	2016	2019	2013	2016	2019
01 - Scienze matematiche e informatiche	0,67	0,31	0,49	0,74	0,83	0,22	0,21	0,39	0,06	0,11	0,07
02 - Scienze fisiche	0,08	0,41	0,24	0,35	0,40	0,15	0,16	0,17	0,08	0,05	0,16
03 - Scienze chimiche	0,75	0,62	1,00	1,09	1,40	0,56	0,65	0,71	0,18	0,24	0,48
04 - Scienze della terra	0,20	0,11	0,47	0,60	1,50	0,20	0,24	0,35	0,25	0,25	0,20
05 - Scienze biologiche	0,90	0,90	1,43	1,20	1,40	1,08	1,38	1,09	0,36	0,43	0,38
06 - Scienze mediche	1,64	1,40	0,80	0,91	1,18	0,37	0,46	0,55	0,11	0,11	0,24
07 - Scienze agrarie e veterinarie	0,38	0,48	0,73	1,03	1,67	0,43	0,39	0,43	0,19	0,18	0,19
08 - Ingegneria civile e Architettura	0,00	0,56	0,31	0,29	0,14	0,33	0,41	0,43	0,00	0,00	0,06
09 - Ingegneria industriale e dell'informazione	0,32	0,43	0,23	0,17	0,10	0,07	0,17	0,19	0,09	0,10	0,13
10 - Scienze dell'antichità, filologico-letterarie e storico-artistiche	1,75	1,15	1,17	1,69	2,00	1,32	0,94	1,13	1,07	1,33	1,42
11 - Scienze storiche, filosofiche, pedagogiche e psicologiche	0,56	0,86	1,65	2,20	2,08	1,19	1,09	1,18	0,60	0,76	1,03
12 - Scienze giuridiche	2,50	1,75	0,74	0,73	0,79	0,67	0,69	0,76	0,36	0,42	0,33
13 - Scienze economiche e statistiche	2,33	1,00	0,95	1,43	1,00	0,59	0,69	0,81	0,09	0,14	0,23
14 - Scienze politiche e sociali	1,00	2,00	0,59	0,89	1,17	0,70	0,50	0,53	0,27	0,25	0,10

RTD = Ricercatore a tempo determinato

RTI = Ricercatore a tempo indeterminato

PA = Professore associato

PO = Professore ordinario

DOMANDA 2

Il candidato definisca e descriva il funzionamento dell'indice di correlazione lineare calcolabile tra il numero di ore di straordinario mensile e il numero di buoni pasto maturati mensilmente dal personale tecnico amministrativo.

DOMANDA 3

Descrivere le funzioni di controllo immissione input valori (in Excel o Access).

ACCERTAMENTO LINGUA INGLESE:

“Clearly Define Your Strategic Goals.

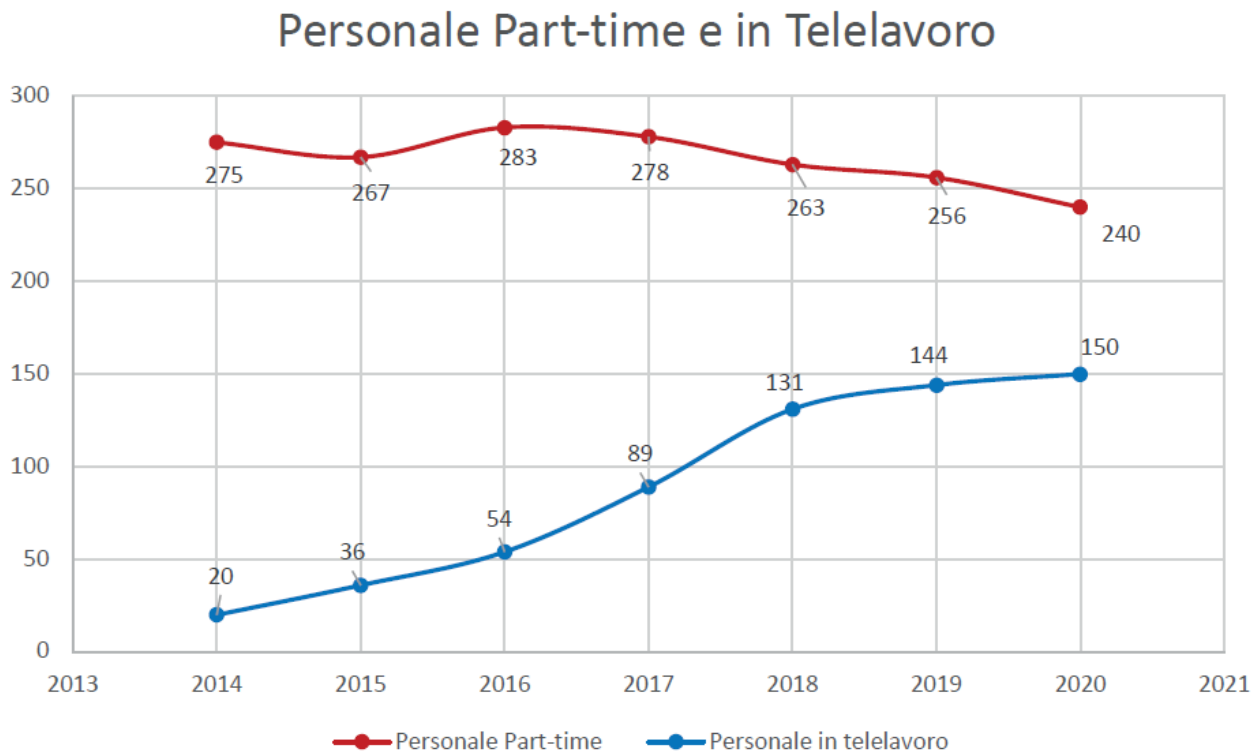
The first goal is to decide what *outcomes* you want to achieve. Many clients buy these systems with a “rip and replace” strategy and they simply want a newer system that’s less expensive to operate or easier to use. This is a naive expectation: new HCM platforms have enormously different capabilities, and each is immature in some areas.

If you’re a fast-growing company, for example, you may be focused on recruiting and internal mobility. So you’ll want your implementation to focus on these areas. If you’re going through a business transformation, you may want to focus on growth, career, and self-service. So you’ll focus your energy on automation, skills, and learning. In some cases, the HCM project is designed to replace a bunch of old systems. So here you’ll need to focus on payroll, operations, and data management. Depending on your business focus, each implementation may go differently. And as you’ll see in the report, if you aren’t focused on employees first, you’re going to have some problems.”

ELENCO 11

DOMANDA 1

Il candidato descriva e commenti il grafico sottostante



DOMANDA 2

Il candidato descriva il possibile utilizzo dell'Analisi della Varianza in relazione alle seguenti due variabili osservate: numero di ore di straordinario maturate al 31/12/2021 e categoria del personale tecnico amministrativo.

DOMANDA 3

Descrivere le query di aggiornamento o di comando.

ACCERTAMENTO LINGUA INGLESE:

"Carefully Manage Data.

One of the biggest benefits of a new system is integrated and accurate data. So you need to make this happen. Most HCM implementations touch payroll and payroll is a complex application. Not only do payroll systems vary by country, but there is a myriad of payroll providers, legacy systems, and compensation and benefits systems to consider. World-class HCM implementations build a global data dictionary, focus on data quality, and invest in systems integration. Remember that lots of HR data are entered by individuals, so the HCM system has to have data quality panels and tools to make sure the data stays accurate. And in this era, these are "systems of intelligence" which get smarter over time. So you're going to start with a "naked system" that doesn't have a lot of smarts, and then you'll need a team to "train" the system over time."

