



CURRENTLY - FROM NEWS TO NOTES

DAILY CURRENT AFFAIRS

The Hindu & The Indian express

Headline	Source
One-time H-1B visa fee is only for new applicants, says U.S.	The Hindu, Page 1
Taliban rule out deal on Bagram air base despite U.S. President's call for its return	The Hindu, Page 16









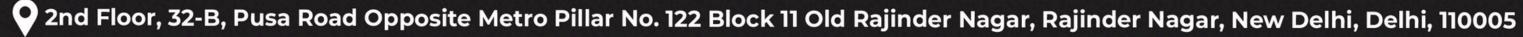




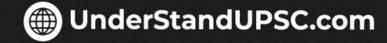


Headline	Source
IAF's iconic MiG-21 fighter to fly into sunset after six decades of service	The Hindu, Page 12
Astronomers have spotted the biggest bangs since the Big Bang	The Hindu, Science page
The age of India's leaders has steadily risen	The Hindu, Page 9















One-time H-1B visa fee is only for new applicants, says U.S.

It clarifies that the fee will not be applicable for current visa holders; announcement eases fears that had triggered a surge in flight bookings

NEW DELHI

day after U.S. Presi-Donald Trump hiked H-1B visa fees to \$100,000, the White House clarified that the fee will not be an annual feature, but rather a "one-time" payment that will have to be made by companies for fresh H-1B visa applicants, starting with the "next upcoming lottery cycle".

The announcement eased the fears that had triggered a surge in last-minute flight bookings to the United States by Indian H-1B visa holders currently outside the country, after U.S. Secretary of Commerce Howard Lutnick's earlier remarks indicating that the fee would have to be paid every year. However, White House Press Secretary Karoline Leavitt contradicted Mr. Lutnick in a social media post early on sas and are currently out-Sunday. "To be clear: This side of the country right is not an annual fee. It's a

Clarity emerges

The White House issued a clarification after an initial announcement on the H-1B visa fee led to panio

- The \$100,000 fee will be a 'one-time' payment
- The fee applies only to new applicants. Those applying for renewals or current visa holders need

not make the payment

■ U.S. Commerce Secretary Howard Lutnick had initially said that the fee would be applied annually, leading to much of the confusion



Take firm stand: Opposition

The Hindu Bureau

The Opposition parties on Sunday took a swipe at the Prime Minister Narendra Modi for not taking a firm

"strong-arm tactics" of the U.S., over the visa fee hike and U.S. President's India-Pakistan "ceasefire" claims.

FULL REPORT ON

» PAGE 13

one-time fee that applies only to the petition. Those who already hold H-1B vi-

\$100,000 to re-enter."

One-time H-1B visa fee is only for new applicants, says U.S.

The Hindu, Page No. 1

GS Paper 2 – International Relations (India-U.S. relations, diaspora issues)

Context

- U.S. President Donald Trump recently hiked H-1B visa fees to \$100.000.
- This initially created confusion, as U.S. Commerce Secretary Howard Lutnick suggested the fee would be annual, triggering panic among Indian H-1B visa holders abroad.
- The White House clarified:
 - The \$100,000 fee will be a one-time payment.
 - It applies only to new H-1B visa applicants (companies filing) fresh petitions in the next lottery cycle).
 - Those applying for renewals or who already hold valid visas are exempt.
- This clarification eased fears, as many Indian visa holders had rushed to book last-minute flights to the U.S. fearing extra costs to re-enter.
- Opposition parties in India criticized the government for not taking a strong stance against what they called the U.S.'s "strong-arm tactics."

















What is the H-1B Visa?

- H-1B Visa: A non-immigrant U.S. visa that allows U.S. companies to employ foreign workers in specialty occupations requiring theoretical or technical expertise (IT, engineering, medicine, etc.).
- Widely used by Indian IT professionals.
- Issued initially for 3 years, extendable to 6 years.

1

- Q. Consider the following statements regarding the Special 301 Report of the United States:
- It is prepared annually by the U.S. Department of State to monitor foreign countries' compliance with international trade rules.
- The report primarily identifies countries that deny adequate protection to intellectual property rights (IPR) or fair market access to U.S. entities.
- India has often been placed on the "Priority Watch List" under this report due to concerns over pharmaceutical patents and copyright enforcement.

Which of the statements given above is/are correct?
(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) 1, 2 and 3













Taliban rule out deal on Bagram air base despite U.S. President's call for its return

Agence France-Presse KABUL

An Afghan government defence official said on Sunday that a deal over Bagram air base was "not possible", after U.S. President Donald Trump said he wanted the former U.S. base back.

Bagram, the largest air base in Afghanistan, located north of the capital Kabul, was the centre of U.S. operations in their 20 yearwar against the Taliban.

Mr. Trump threatened unspecified punishment against Afghanistan if it was not returned – four years after it was abandoned by U.S. troops.



Crucial location: Donald Trump has repeatedly criticised the loss of the Bagram air base, noting its proximity to China. REUTERS

"If Afghanistan doesn't give Bagram Airbase back to those that built it, the United States of America, BAD THINGS ARE GOING TO HAPPEN!!!" the 79year-old leader wrote on his Truth Social platform.

On Sunday, Fasihuddin Fitrat, chief of staff of Afghanistan's Ministry of Defence, said "some people" want to take back the base through a "political deal".

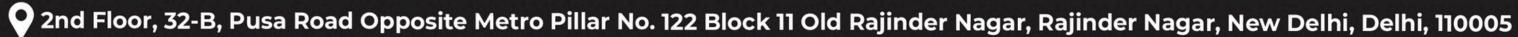
"Recently, some people have said that they have entered negotiations with Afghanistan for taking back Bagram air base," he said in comments broadcast by local media. "A deal over even an inch of Afghanistan's soil is not possible. We don't need it."

Later in an official statement, the Afghan government said warned that "Afghanistan's independence and territorial integrity are of the utmost importance".

Mr. Trump has repeatedly criticised the loss of the base, noting its proximity to China.



















Taliban rule out deal on Bagram air base despite U.S. President's call for its return

The Hindu, Page No. 16, Places in News

Context

- President Donald Trump wants the U.S. to regain control of Bagram air base in Afghanistan.
- The Taliban government has clearly refused, saying no deal is possible on Afghan soil.
- Trump warned of "punishment" if Afghanistan doesn't return it.
- Afghanistan's Defence Ministry stressed that its independence and territorial integrity are most important.
- Trump has often criticized the U.S. exit from Bagram, especially as the base is close to China.

About Bagram Air Base (Afghanistan)

- Location: About 50 km north of Kabul, Afghanistan.
- Importance: Largest U.S. military base in Afghanistan.
- Role in War: It was the center of American operations during the 20-year war against the Taliban.
- Facilities: Runways, aircraft shelters, barracks, hospital, and prison complex.
- Strategic Value:
 - Close to China, Iran, and Central Asia makes it geopolitically sensitive.
 - Symbol of U.S. military power in Afghanistan.

• History:

- Originally built by the Soviet Union in the 1950s.
- Expanded and heavily used by the U.S. after 2001 invasion.
- Abandoned by U.S. troops in 2021 during withdrawal.
- Current Status: Under control of the Taliban since U.S. withdrawal.

2

Consider the following countries:

- 1. Azerbaijan
- 2. Kyrgyzstan
- 3. Tajikistan
- 4. Turkmenistan
- 5. Uzbekistan

Which of the above have borders with Afghanistan?

2022

- (a) 1, 2 and 5 only
- (b) 1, 2, 3 and 4 only
- (c) 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

16

Consider the following pairs:

Towns sometimes Country
mentioned in news

- 1. Aleppo Syria
- 2. Kirkuk Yemen
- 3. Mosul Palestine
- 4. Mazar-i-sharif Afghanistan

Which of the pairs given above are correctly matched?

- (a) 1 and 2
- (b) 1 and 4
- (c) 2 and 3
- (d) 3 and 4

2018





IAF's iconic MiG-21 fighter to fly into sunset after six decades of service

Saurabh Trivedi NEW DELHI

The Indian Air Force will officially retire its legendary MiG-21 fighter jets on September 26, marking the end of nearly six decades of service for the aircraft widely hailed as the "workhorse" of India's air defence.

A ceremonial flypast and decommissioning event will be held at the IAF base in Chandigarh and will be attended by senior military leaders and veteran pilots who have flown the jet across generations.

Inducted in 1963, the MiG-21 was India's first supersonic fighter, with its maiden squadron – the 28 Squadron at Chandigarh – earning the nickname 'First Supersonics'. Over the years, India inducted



Glorious stint: Air Chief Marshal A.P. Singh flew the aircraft in Bikaner recently ahead of its official retirement. FILE PHOTO

more than 700 MiG-21s of different variants, many built domestically by the Hindustan Aeronautics Limited.

The aircraft was the backbone of the IAF till the mid-2000s, playing crucial roles in the 1965 and 1971 wars, the 1999 Kargil conflict, the 2019 Balakot air strikes, and most recently

Operation Sindoor. It was in a MiG-21 that Group Captain Abhinandan Varthaman (then Wing Commander) shot down a Pakistani F-16 in 2019 before being captured across the border.

Besides combat successes, the MiG-21 also boosted India's aerospace industry, pushing indigenous manu-

facturing and technological capabilities to new levels.

IAF chief's tribute

In August this year, Air Chief Marshal A.P. Singh, the Chief of Air Staff, paid tribute to the jet with solo sorties from the Nal airbase in Bikaner in Rajasthan.

The IAF, in a post on X, described the MiG-21 as a "warhorse that carried the pride of a nation into the skies" and released a tribute video showcasing its storied history.

As the MiG-21 squadrons are phased out, the IAF's combat strength will dip to 29 squadrons. However, senior officers have hinted that the Tejas Light Combat Aircraft Mk 1A will step in to replace the ageing fighter in the years to come.

IAF's iconic MiG-21 fighter to fly into sunset after six decades of service

The Hindu; Page No.: 12

Defence, Security, Indigenisation

The Indian Air Force (IAF) will retire its MiG-21 fighter jets on 26th September 2025, ending nearly 60 years of service. Inducted in 1963, the MiG-21 was India's first supersonic jet, crucial in wars (1965, 1971, Kargil, Balakot airstrikes). Known as the "workhorse" of Indian air defence, it also boosted aerospace manufacturing. Now, the Tejas LCA (Light Combat Aircraft) Mk1A is set to replace it.

Difference

- 4th Gen → Multirole, advanced avionics, maneuverability, limited stealth.
- 5th Gen → Stealth, sensor fusion, supercruise, network-centric warfare.

Examples of 4th Gen Fighter Jets

- F-16 Fighting Falcon (USA)
- Mirage-2000 (France)
- MiG-29, Su-27 (Russia)
- Su-30MKI, Tejas Mk1/Mk1A (India)





Examples of 5th Gen Fighter Jets (with countries)

- F-22 Raptor USA
- F-35 Lightning II USA
- Su-57 Felon Russia
- Chengdu J-20 Mighty Dragon China
- AMCA (Advanced Medium Combat Aircraft) India (under development, not yet in service)

4

Consider the following aircraft:

- 1. Rafael
- 2. MiG-29
- 3. Tejas MK-1

How many of the above are considered fifth generation fighter aircraft?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

2024





Astronomers have spotted the biggest bangs since the Big Bang

Black holes are one of nature's most inscrutable creations, and supermassive black holes that lurk near the centres of galaxies are the biggest of them all. As a star nears a black hole's event horizon, extreme forces stretch and compress the star into a long, thin stream, releasing enormous amounts of electromagnetic energy

or all its apparent serenity, the universe is a very violent place. teeming with cataclysmic ever from colliding galaxies and supernovae (the explosive deaths of massive stars), to immensely powerful geysers of X-rays and black holes that

In this deafening cosmic din. onomers have always considered gamma-ray bursts (GRBs), produced ing the formation of black holes, to be the most powerful flare-ups in the universe. Incredibly energetic GRBs traverse vast distances, making them the most luminous electromagnetic events since the Big Bang, the accepted cosmological model to explain the origin and evolution of the universe.

But recently, astronomers from the University of Hawaii's Institute for Astronomy (IfA) identified a new category of events that they found to be much more powerful than GRBs: extreme nuclear transients (ENTs). In astronomy, transients refer to celestial objects whose rightness changes significantly over a relatively short period.

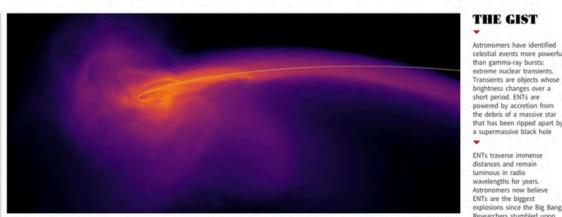
The IfA findings, published recently in Science Advances, described extraordinary phenomena that occurred when extremely big stars wandered too close to gargantuan black holes in galactic centres and literally got eaten up. Their fate was much like that of Icarus in Greek mythology, who flew too close to the sun on wings of wax and feathers only for the vings to melt, causing him to plummet to

"ENTs are powered by accretion from the debris of a massive star at least three times heavier than our sun that has been ripped apart by a supermassive black "," Jason Hinkle, the lead author of the If A study, wrote to the author.

Black holes are one of nature's most nscrutable creations, and supermassive black holes that lurk near the centres of galaxies are the biggest of them all. There s one in the Milky Way galaxy, too:

As a star nears a black hole's event horizon - its outer edge that marks the point of no return for even light reme tidal forces stretch and compres the star into a long, thin spaghetti-like electromagnetic energy. This emission is

These brilliant space streamers raverse immense distances and remain uminous in radio wavelengths for years.



A scene from a computer simulation of a tidal disruption of a one-solar-mass star by a one-million-solar-mass supermassive black hole. The snapshot shows the star being 'spaghettified' into a long thin stream, DANIELJAMESPRICE (CC BY-SA)

study them. In fact, ENTs are so powerful that astronomers now believe they are the since the Big Bang.

transient events vet discovered," Dr. Hinkle said. "They emit up to ten-time more energy than the previous record

Dr. Hinkle stumbled on to ENTs when sifting through data from the European Space Agency's Gaia spacecraft, which mapped the Milky Way for more than a

"We were looking for smooth, high-amplitude, and long-lived events," he said. "In 2020, we began following two in the Gaia data with space-based UV/X-ray missions and ground-based spectroscopy to measure physical parameters, which gave the first indications that we were seeing something special

When the Zwicky Transient Facility [which scans the entire Northern sky every two days using an extremely wide field of view camera at the Palomar observatory in California] published data on a third similar event in 2023, it gave additional confidence that we had found a rare, new class of transient phenomena." he added.

Astronomers have previously observed stars being torn apart in tidal disruption events (TDEs), which happens when a star is pulled apart by a black hole's tidal forces, releasing the energy equivalent of more than a hundred supernovae in the

ENTs are also much rarer than the TDEs we observe in the local universe. However, we think that ENTs are TDEs of massive stars that are just too rare to observe in the nearby universe

JASON HINKLE LEAD AUTHOR OF THE IFA STUDY

process. In that sense, TDEs share many similarities with ENTs, including hot mperatures, brilliant emissions, and broad emission lines. But the two are actually quite different

"The host galaxies of ENTs are much larger than that of a TDE and have a more massive central black hole," Dr. Hinkle than the TDEs we observe in the local universe. However, we think that ENTs are TDEs of massive stars that are just too rare to observe in the nearby universe.

ENTs also differ from the mysterious fast X-ray transients (FXTs), short-lived bursts of X-rays from distant galaxies that have puzzled astronomers since they were first found in the 1970s.

The origins of FXTs remained elusive largely because their signals are less energetic and more fleeting than traditional X-ray driven GRBs.

Despite an exhaustive search, which even included candidate sources such as TDEs where a small black hole interacted with a white dwarf, astronomers couldn't determine where FXTs originated. The mystery was finally solved in June when in the US and the University of Leicester in England discovered FXTs actually arose from high energy particles trapped inside than gamma-ray bursts:

short period. ENTs are powered by accretion from

ransients are objects whose

the debris of a massive star

losions since the Big Bang

ENTs when sifting through

By building a sample of ENTs, it will be possible to study massive black holes in the

early universe, especially the

large majority of those that

are not otherwise accreting,

complement to studies of

accreting black holes in the

It turned out that when high-energy particle jets break through a star's outer layers, they produce GRBs. But if these jets are contained within the star, they release lower-energy X-ray signals that w observe as FXTs. In other words, unlike ENTs, FXTs are essentially an X-ray phenomenon that occurs on very short

Astronomers are excited about the ospect of observing the universe in the light of the extreme luminosity of ENTs.

ample of ENTs, we can study massive black holes in the early universe, especially the large majority of those that are not otherwise accreting, serving as an excellent complement to studies of accreting black holes in the early

This will be made easier by a new generation of telescopes and instrume with AI-powered data analysis, such as the Vera C. Rubin Observatory in Chile and the Nancy Grace Roman Space Telescope, scheduled to be launched in 2027. They promise to revolutionise our inderstanding of the extreme physics behind a universe filled with cosmic destruction on such immense scales.

(Prakash Chandra is a science writer.

Context

This article discusses a groundbreaking discovery by astronomers who have identified a new class of cosmic explosions called ENT's (Extremely Non-repeatable Transients). These events are more powerful and longer-lasting than gamma-ray bursts, which were previously considered the most energetic explosions in the universe. ENT's are believed to occur when supermassive black holes rip apart massive stars in extremely rare cosmic events. This discovery could help scientists better understand black holes, the early universe, and extreme astrophysical phenomena.

What Are Black Holes?

Definition: A black hole is a region in space where gravity is so strong that nothing—not even light—can escape from it.

Formation: Most black holes form when very massive stars collapse under their own gravity at the end of their life cycle.

Event Horizon: The "point of no return" around a black hole—once something crosses it, it can't escape.

What Are Supermassive Black Holes?

Definition: These are the largest type of black holes, containing millions to billions of times the mass of our Sun.



Location: Found at the centers of most galaxies, including our Milky Way. Power: When matter (like a star) falls into a supermassive black hole, it gets stretched and compressed, releasing huge amounts of energy in the form of radiation.

★ What Are ENT's (Extremely Non-repeatable Transients)?

Definition: ENT's are ultra-powerful cosmic explosions that occur only once and don't repeat—hence the name "non-repeatable."

Brightness & Power:

- Brighter than gamma-ray bursts (GRBs), previously considered the most luminous explosions.
- Can remain bright and visible for years, unlike typical transient events.
- Possible Cause: Likely result from a star being shredded by a supermassive black hole in a rare type of tidal disruption event (TDE).
- Significance: ENT's may be the most energetic events since the Big Bang.
- Help scientists study extreme black hole activity and the early universe.
- They are rare and hard to detect.

Recently, scientists observed the merger of giant 'blackholes' billions of light-years away from the Earth. What is the significance of this observation?

- (a) Higgs boson particles' were detected.
- (b) 'Gravitational waves' were detected.
- (c) Possibility of inter-galactic space travel through 'wormhole' was confirmed.
- (d) It enabled the scientists to understand 'singularity'.

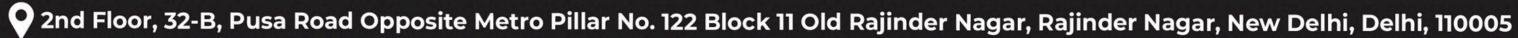
6

The terms 'Event Horizon', 'Singularity', 'String Theory' and 'Standard Model' are sometimes seen in the news in the context of

- (a) Observation and understanding of the Universe
- (b) Study of the solar and the lunar eclipses
- (c) Placing satellites in the orbit of the Earth
- (d) Origin and evolution of living organisms on the Earth

2017















The age of India's leaders has steadily risen

The age profile of the Lok Sabha has shifted markedly over the decades, with the 18th Lok Sabha being the "oldest" yet

DATA POINT

Arja Kakkad

hen Jagdeep Dhankhar stepped down as Vice-President, citing agerelated health issues, discussions on ageing in politics sharpened in India. The suggestion of Rashtriya Swayamsevak Sangh (RSS) chief Mohan Bhagwat two months ago that leaders should step aside at the age of 75 had also triggered a debate. Narendra Modi continues as Prime Minister despite crossing the age of 75 and so do several other leaders, underscoring the lack of a clear retirement norm. The BJP's unofficial age limit of 75 years symbolised by the creation of the Margadarshak Mandal, often seen as a euphemism for the par-

politicians should call it a day. At the State level too, Chief Miister Nitish Kumar's age and health have emerged as key talking points ahead of the Bihar elections. Several instances of incoherence at public events have raised doubts about his ability to take crucial policy decisions and effecively discharge his duties. This is in sharp contrast to the image of sushasan babu (boss of good governance)' that he cultivated during his early years.

ty's retirement cell - has kept the

spotlight on the question of when

In fact, gerontocracy - comnonly defined as rule by a group of old men or a council of elders has become an important theme in the global discourse on democracy. In the 2024 U.S. presidential elections, age dominated the campaign conversation: Joseph Biden, oldest President in American history, left office at 82, while his successor Donald J. Trump took office at 78 years and 220 days, setting a record as the oldest to be inaugurated. That year, celebrated worldwide as the 'year of democracy' for its many pivotal elections, saw the rise of several geriatric

leaders to power, including Brazil's President Lula da Silva, 79: Israel's Prime Minister Benjamin Netanyahu, 75; and Narendra Modi, 74.

The persistence of gerontocracy is evident even among unelected leaders and dictators. From longruling strongmen in parts of Africa to supreme leaders in oil-rich Asian republics, many continue to hold on to office well into old age. Authoritarian leaders such as Turkey's Recep Tayyip Erdoğan, 72, and Russia's Vladimir Putin, also 72, have extended their grip on power for decades, underscoring how age is rarely a barrier to political dominance outside democrat-

This trend of elderly leaders dominating politics, whether through democratic elections or authoritarian rule, is hardly new. Gerontocracy was a defining feature of governance in the Greek city-states and the Roman Senate. where advancing age was closely associated with wisdom and experience, creating a form of traditional authority that legitimised the rule of the old.

An analysis of the ages of India's Prime Ministers shows a steady upward trend. At independence in 1947, Jawaharlal Nehru became the first Prime Minister at 58, serving with a median age of 66 during his tenure. By 2014, Narendra Modi entered office at 63, and the median age of Prime Ministers had climbed to 76. The range has been wide: Rajiv Gandhi was the youngest to assume office at 40, while Morarji Desai was the oldest, taking charge at 81. Tellingly, Nehru demitted office at 74 in 1966, whereas Manmohan Singh, the last Prime Minister before Modi, stepped down in 2014 at 81. Across India's history, the median age of Prime Ministers has hovered around 67.

In comparison, the median age of Chief Ministers increased only modestly, from 57 in the 1950s to 59.5 in the 2020s, with the peal decade being 2010-2020 when it touched 62.25. A breakdown by

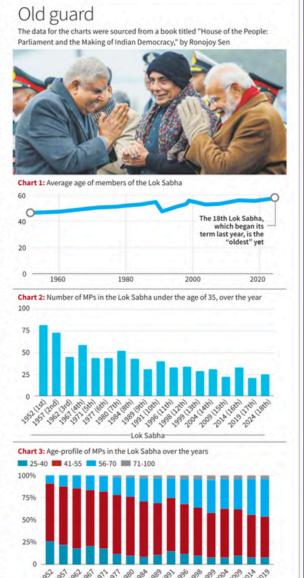
party - regional versus national, and within national parties between the Congress and the BIP shows negligible variation, with the average age of Chief Ministers across the board hovering around 58 years. The presence of younger leaders such as Navab Singh Saini. Mohan Yaday, and Yogi Adityanath might suggest that the BJP promotes younger talent, especially gress's image as India's 'Grand Old Party'. However, our analysis shows minimal difference in average age between the two.

In general, the younger aptments across parties are baanced out by veterans such as the late Prakash Singh Badal in Puniab, the late V.S. Achuthanandan in Kerala, and the late M. Karunanidhi in Tamil Nadu, all of whom served well into their late 80s and

The age profile of the Lok Sabha has shifted markedly over the decades (Chart 1), with the 18th Lok Sabha, which began its term last year, being the "oldest" yet. The average age of parliamentarians rose from 46.5 years in 1952 to 56 years by 2014. Meanwhile, the share of vounger members (25-40 years) declined sharply from about 25-30% in the early years to under 10%. In contrast, the share of members aged 56-70 grew from less than 25% to nearly 40% by 2019. The data makes clear that In dia's Parliament is ageing, with fewer young politicians making it into the House over time.

If we were to pick out a randon Indian, there is a 50% probability that they are less than 30 years old. However, this probability is 0.007% if we were to do the same for a member of the Lok Sabha in Lok Sabha under the age of 35, over the years. Chart 3 shows the age-profile of MPs in the Lok Sabha over the years.

> University and Arja Kakkad, studies in Ashoka University



Mains Enrichment

Visual Insights from Charts

- · Chart 1: Shows a consistent increase in average age, peaking with the 18th Lok Sabha.
- Chart 2: Depicts fall in MPs under 35, lowest in recent decades.
- Chart 3: Age-profile bars illustrate major shrinkage of the 25-40 group, growth in 56-70 and 71-100 brackets.

Key Data Points

- The average age of Lok Sabha members has steadily increased since Independence, now above 57 years in the 18th Lok Sabha.
- The number of MPs under age 35 has drastically dropped from over 75 in 1952 to just 32 in the present house.
- Age group 25-40 now forms the smallest segment in the Lok Sabha; members above 56 years dominate representation.



💽 2nd Floor, 32-B, Pusa Road Opposite Metro Pillar No. 122 Block 11 Old Rajinder Nagar, Rajinder Nagar, New Delhi, Delhi, 110005

O understand.upsc





