

CHIPS for America Notice of Funding Opportunity Launch

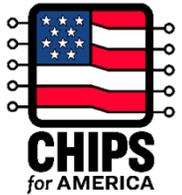
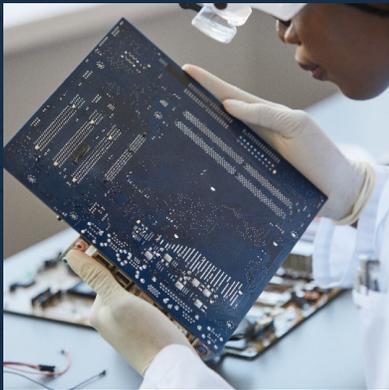
Commercial leading-edge, current-, and mature-node fabrication facilities



February 28, 2023

NIST

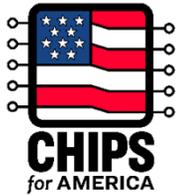




WELCOME

- We look forward to your questions. Click the Q&A button, type your question, and click “Post Question” to submit.
- We will answer as many questions as possible today.
- Visit [CHIPS.gov](https://www.chips.gov)
 - Get the Notice of Funding Opportunity
 - Access additional resources for applicants and stakeholders
 - Sign up for email updates
 - Register for future webinars

Today's Speakers



Michael Schmidt
Director of the CHIPS
Program Office



Adrienne Elrod
Director of External and
Government Affairs



Morgan Dwyer
Chief Strategy Officer

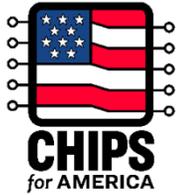


Todd Fisher
Chief Investment Officer



Kylie Patterson
Senior Advisor for
Opportunity & Inclusion

CHIPS for America Vision



Economic Security

The CHIPS Act will strengthen supply chain security and increase economic resilience in critical sectors.



National Security

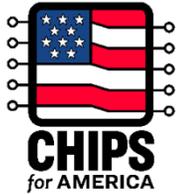
The CHIPS Act will ensure that the U.S. can manufacture advanced technologies, including secure chips for the U.S. military.



Future Innovation

The CHIPS Act will spur innovation, increase competitiveness, and ensure long-term U.S. leadership in the sector.

CHIPS for America Programs



\$39 billion for manufacturing

Components:

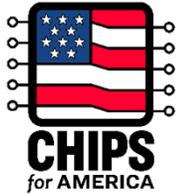
1. Attract large-scale investments in advanced technologies such as leading-edge logic and memory
2. Incentivize expansion of manufacturing capacity for mature and other types of semiconductors

\$11 billion for R&D

- National Semiconductor Technology Center
- National Advanced Packaging Manufacturing Program
- Manufacturing USA institute(s)
- National Institute of Standards and Technology measurement science

Together with CHIPS initiatives from other agencies, including DOD, State, NSF, and Treasury

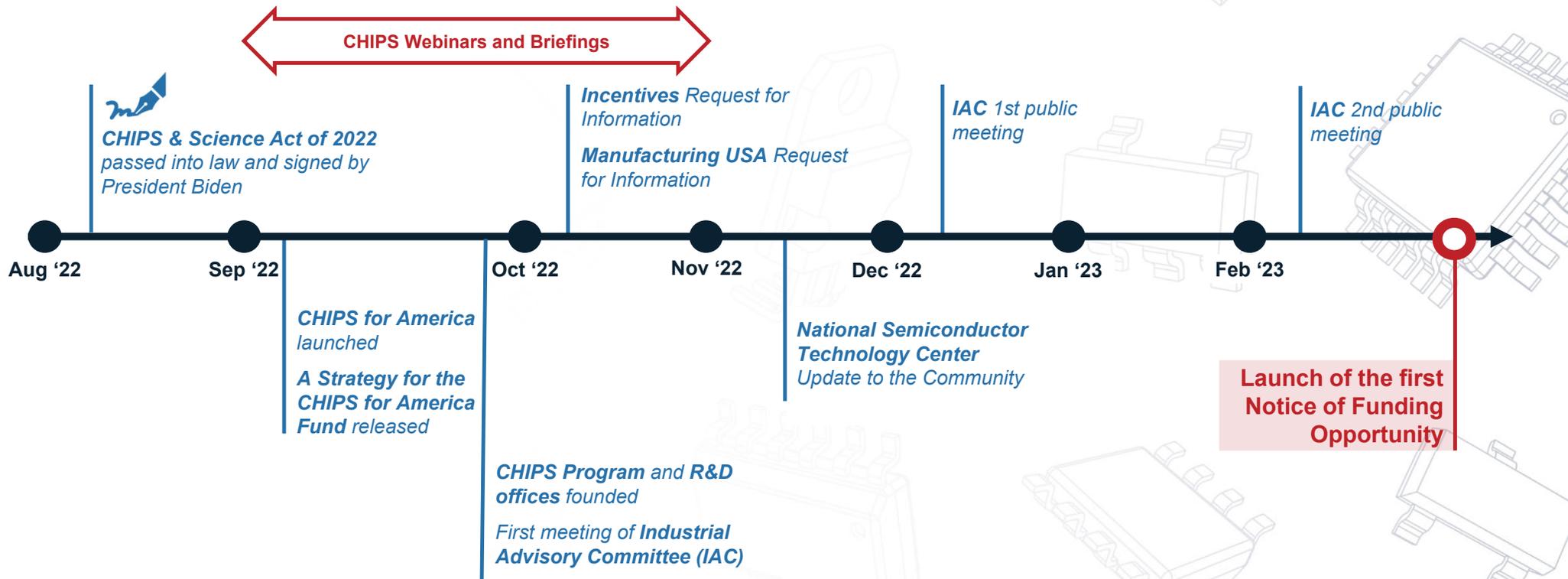
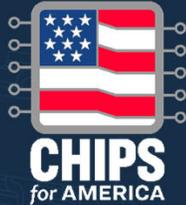
Workforce development

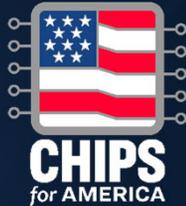


CHIPS Incentives Program Objectives

- Strengthen security and resilience of the semiconductor supply chain
- Provide a supply of secure semiconductors for national security
- Improve resilience of semiconductor supply chains for critical industries
- Bolster the semiconductor and skilled technical workforces
- Strengthen U.S. leadership in semiconductor technology
- Promote inclusion of economically disadvantaged individuals and small businesses
- Grow the U.S. economy and support job creation

We have spent the last 6 months preparing for this milestone



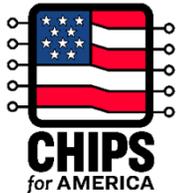


First Funding Announcement*

February 28, 2023

*The CHIPS Incentives Program Commercial Fabrication Facilities NOFO is the official funding announcement document. Nothing in this presentation or the accompanying materials is intended to contradict or supersede information in the NOFO. The NOFO controls in the event of any conflicts.

Funding Opportunities



Statements of Interest for all funding opportunities encouraged starting today

Vision for Success



Leading-Edge Logic

- ✓ The U.S. will have at least **two new large-scale clusters of leading-edge logic fabs**
- ✓ **U.S.-based engineers** will develop the process technologies underlying the **next gen of logic chips**



Memory

- ✓ U.S.-based fabs will **produce high-volume memory chips on economically competitive terms**
- ✓ **R&D for next-generation memory** technologies critical to supercomputing and other advanced computing applications will be **conducted in the U.S.**



Advanced Packaging

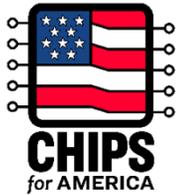
- ✓ The U.S. will be home to **multiple high-volume advanced packaging facilities**
- ✓ The U.S. will be a **global leader in commercial-scale advanced packaging technology**



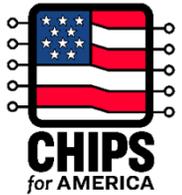
Current-Generation and Mature

- ✓ The U.S. will have **strategically increased its production capacity** for current-gen and mature chips
- ✓ Chipmakers will also be able to **respond more nimbly** to supply and demand shocks

By the end of the decade...



Accomplishing these objectives requires:



Catalyzing private investment

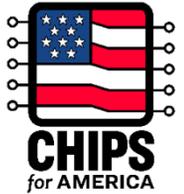
Protecting taxpayer dollars

Building a skilled and diverse workforce

Engaging with U.S. partners and allies

Driving economic opportunity and inclusive economic growth

Funding Eligibility



For organizations
that are...

- private
- non-profit
- consortia

that can
substantially...

- construct
- expand
- modernize

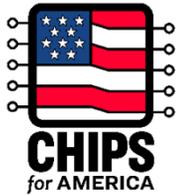
a U.S. facility for...

- fabrication
- assembly
- testing
- packaging
- production

of...

- semiconductors

**More details available in the funding opportunity announcement*



This funding announcement contains:

Program objectives and priorities

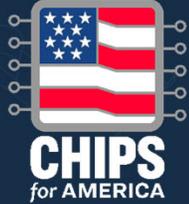
Funding instruments

How to apply

Application evaluation and selection processes



Program Priorities



Economic
and national
security
objectives



Commercial
viability



Financial
strength



Technical
feasibility
and
readiness

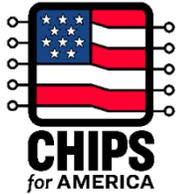


Workforce
development



Broader
impacts

Economic Security



SEEKING PROJECTS THAT

- Increase U.S. semiconductor production and align with U.S. strategic needs
- Create a more resilient semiconductor supply chain
- Build foundry or other capacity to serve many different customers
- Attract supplier, workforce, and other investments
- Contribute to a self-sustaining ecosystem and catalyze future upgrades

Leading-edge

- Use the most advanced tech and produce products that are most critical to enhancing U.S. competitiveness
- Commit to ongoing investment in U.S.

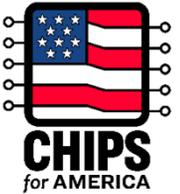
Current-generation and mature-node

- Support production of chips vital to automobiles, aerospace and defense, and other critical infrastructure
- Use processes that convert to make other types of chips in times of disruption

Back-end production

- Advanced packaging

National Security



SEEKING PROJECTS THAT

Produce semiconductors that are relied upon by the Department of Defense, other government systems, or by critical infrastructure

Support U.S. government national security needs, such as by providing U.S. government access to facility output, or adapting commercial production for low-volume and high-mix national security components

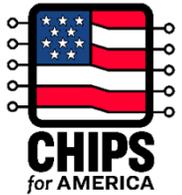
Mitigate operational and cybersecurity risks

Strengthen supply chain resilience by analyzing and managing risks to their own supply chains

Ensure that foreign entities of concern will not pose undue risks

Produce mature-node semiconductors that are then supplied to critical manufacturing industries

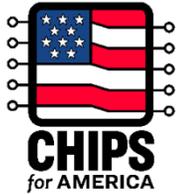




Guardrails

- Funds may not be provided to a foreign entity of concern
- Recipients will be required to agree to restrict their ability to expand semiconductor manufacturing capacity in foreign countries of concern for ten years
- Recipients must not knowingly engage in any joint research or technology licensing effort with a foreign entity of concern that involves sensitive technologies or products
- Failure by CHIPS incentives recipients to comply with these restrictions may result in recovery of the full amount of funding

Commercial Viability



Demand for the product

Size / diversity of customer base

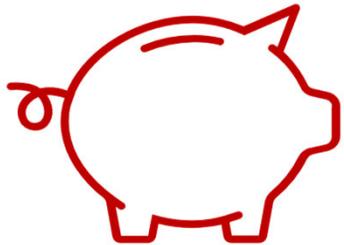
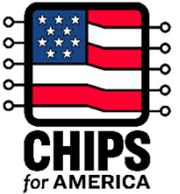
Existing and planned supply

Expected volume and pricing dynamics

Ability to counter potential technological obsolescence of the facility

Stability and predictability of key supplies

Financial Strength



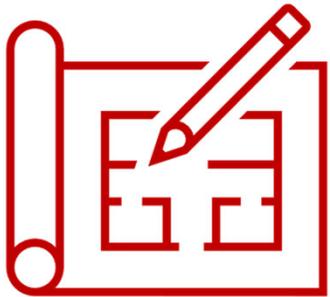
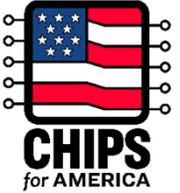
Financial strength of the applicant / parent

Financial strength of the project

Commitment of private/third-party investment

Reasonableness / suitability of CHIPS funding request

Technical Feasibility and Readiness



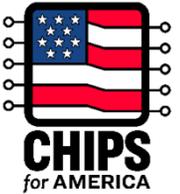
Organizational
readiness

Technology and
manufacturing
processes

Construction
plan

Environmental
risk

Workforce Development



Create good jobs

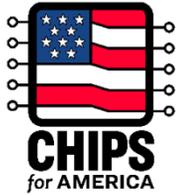
Recruit, hire, train, and retain a diverse and skilled construction and manufacturing workforce

Include women and economically disadvantaged individuals

Engage with community partners

Child care

Broader Impacts



Commitments to future investment

Support for semiconductor R&D

Inclusive opportunities for businesses

Climate and environmental responsibility

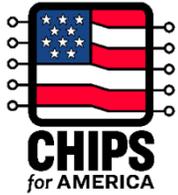
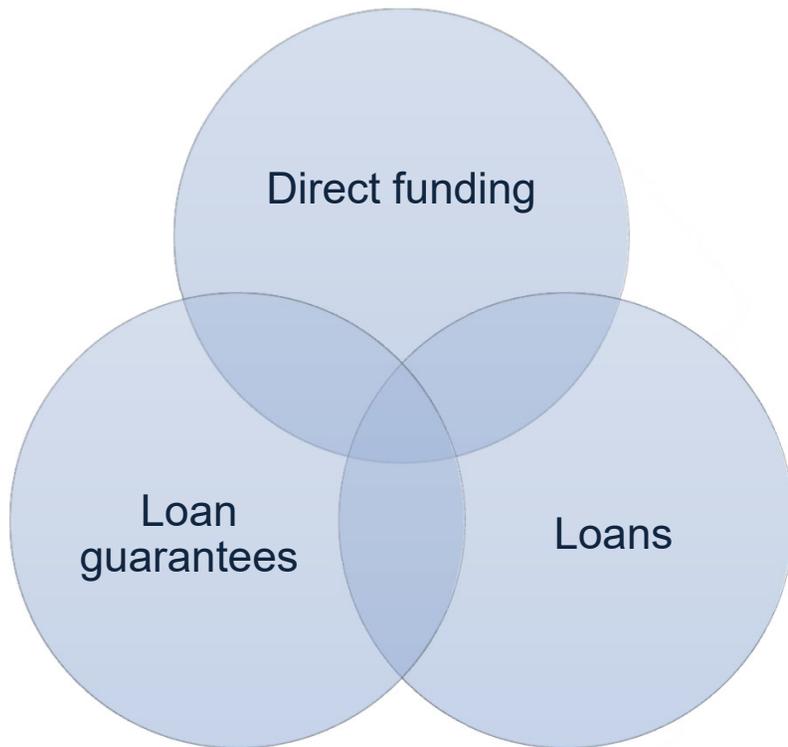
Community investments

Domestic content preferences

Upside sharing

Funding Instruments

Funding Availability



Total funding

For CHIPS **Direct Funding**, up to **\$38.2B** available in total

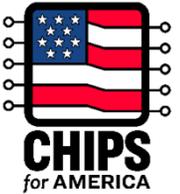
For CHIPS **Loans** and **Loan Guarantees**, up to **\$75B** in total in direct loan or guaranteed principal

Funding by project

Direct funding expected to be **5-15% of project capital expenditures**

Expected total amount of a CHIPS Incentives Award expected not to exceed **35% of project capital expenditures**

Funding Restrictions



No funds may be used to construct, modify, or improve a facility outside of the U.S.

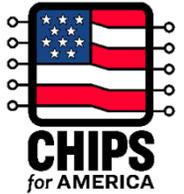
Funds may not be used to physically relocate existing facility infrastructure to another jurisdiction in the U.S., unless the project is in the national interest

Public funds cannot be used for stock buybacks or dividend payments

Recipients of funds may not charge above the actual costs incurred in executing the award's approved scope of work

Funds to be returned if taxpayer funds are misused

Application Process



- 1 Statement of interest (*open to all*)
- 2 Pre-application (optional) **Feedback**
- 3 Full application
- 4 Due diligence
- 5 Award preparation

Submissions accepted as of...

Leading-edge

Current-gen, mature-node, and back-end

February 28, 2023

February 28, 2023

March 31, 2023

May 1, 2023

March 31, 2023

June 26, 2023

1

Statement of Interest (SOI)

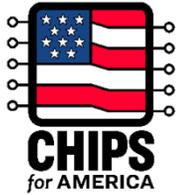
Purpose

Help CPO gauge interest in the program and the types of projects and applicants applying, and prepare to review applications

The SOI will not be evaluated for purposes of review and selection of awards

What is needed?

- Applicant information
- Basic project information including nature of the project and potential scope
- Estimated timeline for next submission



All applicants eligible for funding across any funding opportunity

Earliest submission on February 28, 2023

Required 21 days before next submission

Submit an SOI via CHIPS.gov

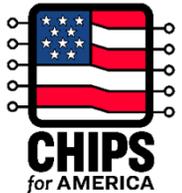
2 Pre-Application

Purpose

Create an opportunity for dialogue between CPO and the potential applicant to ensure it is ready to meet program requirements and address program priorities

What is needed?

- More detailed description of proposed project(s)
- Summary financial information



Strongly recommended for current-generation, mature-node, or back-end production facilities

Earliest submission for leading edge applicants: March 31, 2023

Earliest submission for current-generation, mature-node or back-end production facilities: May 1, 2023

3

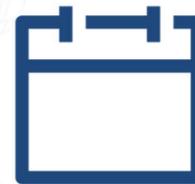
Full Application

Purpose

Submit a full application to be officially considered for a CHIPS Incentive Award

What is needed?

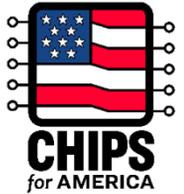
- Detailed information on the proposed project(s) to enable evaluation of its merits



Required for all applicants

Earliest submission for leading-edge applicants: March 31, 2023

Earliest submission for current-generation, mature-node or back-end production facilities: June 26, 2023



4 Due Diligence

If CPO determines that a full application is reasonably likely to receive an award and there is, or likely will be, agreement on a **Preliminary Memorandum of Terms**, the application will enter the due diligence phase.

What is needed?

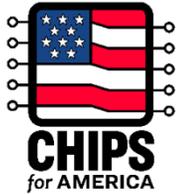
- Validation of national security, financial, and other information

5 Award Issuance

The Department will prepare and issue one or more CHIPS Incentive Awards for applications selected for funding.

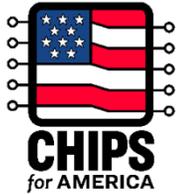
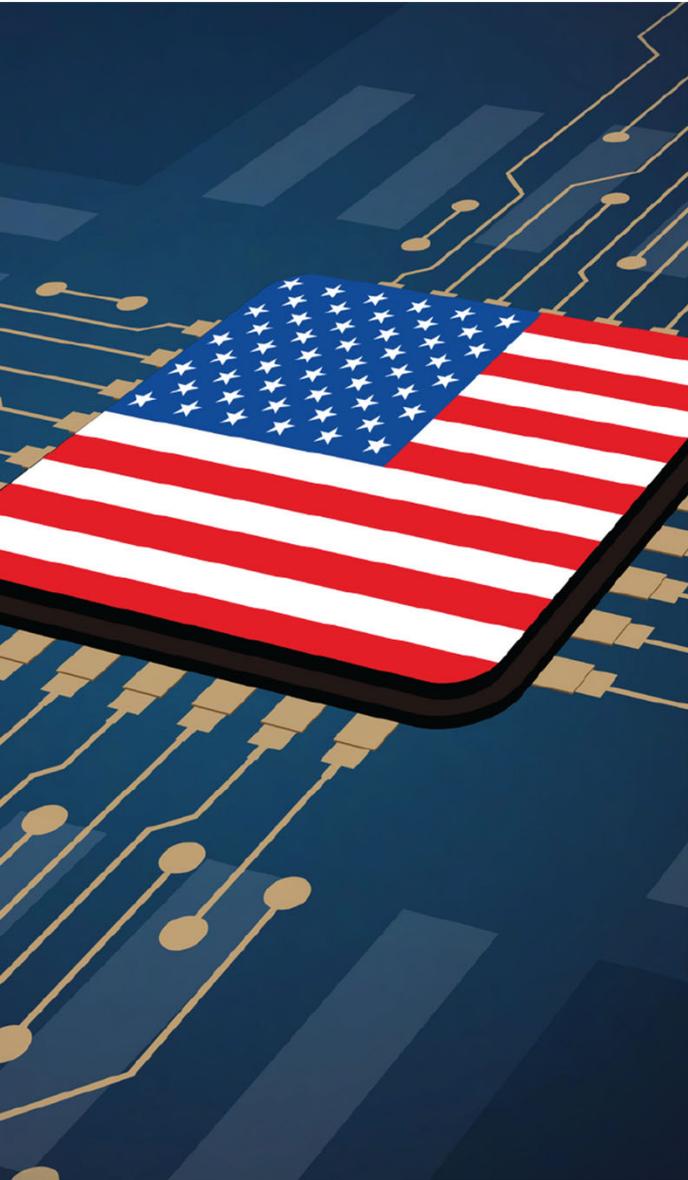
When will these funds be disbursed?

- Disbursements will be tied to project milestones
- Project milestones will be determined during the application process
- Milestones will vary by project





Resources



Next Steps

- Submit a Statement of Interest¹
- Visit [CHIPS.gov](https://chips.gov) for resources, including:
 - Notice of Funding Opportunity
 - Vision for Success paper
 - Applicant guides and templates
 - FAQs and fact sheets
 - Webinar schedule (and recordings of prior webinars)
- Join our mailing list
- Contact us
 - askchips@chips.gov – general inquiries
 - apply@chips.gov – application-related inquiries

1. Statements of Interest are welcome beginning Feb. 28, 2023 for all three funding opportunities



Question and Answers

Attendee View

(David Lee)

Entry banner alerts Attendee that nobody will be able to see or hear them.



Event title → Sales Kickoff

Speaker Volume → [Volume slider]

Mute Speaker → [Mute icon]

Full Screen → [Full Screen icon]

Exit the event → [Exit icon]

Questions & Answers → [Questions & Answers icon]

Expand side navigation (display Presenter roster) → [Expand icon]

Settings (choose which speaker to use) → [Settings icon]

Slider bar – drag to change the size of video and content → [Slider bar]

Entry banner: The event is live - You are in a view only role and can not be seen or heard DISMISS

Line Graph Data:

Year	RED	BLUE	GREEN	YELLOW
2004	0%	0%	0%	0%
2005	25%	15%	10%	5%
2006	50%	35%	25%	15%
2007	75%	55%	45%	30%
2008	85%	65%	55%	40%
2009	90%	70%	60%	45%
2010	95%	75%	65%	50%
2011	100%	80%	70%	55%

Click the Q&A button, type out your question, and click “Post Question”.





Thank you